THE DISEASE OF LONDON: OR A NEW DISCOVERY Of the SCORVEY.

Comprizing

The Nature, Manifold Differences, various Causes, Signs, Prognostics, Chronology, and several Methods of Curing the said DISEASE by Remedies, both *Galenical*, and *Chymical*, together with Anatomical Observations, and Discourses on *Convulsions*, *Palsies*, *Apoplexies*, *Rheumatisms*, *Gouts*, *Malignant Fevors*, and *Small Pox*, with their several Methods of Cure and Remedies. Likewise particular Observations on most of the Forementioned Diseases.

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THE DISEASE OF LONDON.

CHAP. I.

Containing A Præmiſſory Diſcourſe of the SCORVEY.

1. *The Deſign of the Treatiſe.* 2. *The Synonyma's and Derivation of the* Scorvey. 3. *Whether the* Scorvey *was known to* Hippocrates *or* Galen? *that it's contagious and hæreditary.* 4. *That the* Scorvey *is of about* 200 *years ſtanding.*

I Will not reſume, what by others hath ſo oft been chaw'd upon, and that take for a reaſon, if I do not tell you a Story out of *Eugalen*, *Solomon Albertus*, or *Wierus*, a ſort of people, that from one another re-col-

lected a moſt prodigal number of Scorbutick Symptoms, by the ſame Rule of Arithmetical Progreſſion, *Galen* made uſe of in muſtering his Centuries of Pulſes, an impertinent variety, more imaginary, than perceptible by the ſubtilleſt Aranean Tact. By what I here condemn, you may conjecture, I prætend to divulge ſomething particular, in ſuch terms, as ſhall as little tire you in the reading, as me in writing. To commence my Diſcourſe from the Deſcription of my Subject, ſeemeth moſt expedient, wherein an exactneſs ought to be aimed at, exceeding what hitherto hath been heeded, which may oblige ſuch, as when meeting with a diſtemper, they are not well acquainted with, are compelled to tell the Patient, it is the *Scorvey*.

§ 2. *Scorbutus* and *Scorvey* (*quaſi Scorbey*) are words baſtardized from *Scorbeck*, a Weſtphalian Primitive, denoting a Hoarſe Throat, probably a Symptom, that antiently attended that Diſeaſe, and in theſe dayes is now and then obſerved a Concomitant,

tant, eſpecially among the Danes, where it paſſed by the name of *Schermund*; who moreover being oft rack'd with tearing pains in their legs, gave them the name of *Schorbein*, or Tear-leg. By the way, I muſt here take notice of a vulgar error, in the Orthography of the word *Scurvey*, which ought to be written *Scorvey*, as being derived from the word *Scorbeck*. The Low Dutch diſcerning, it oft exerciſeth its fury on the Guts, by cauſing inſufferable Gripes, chuſe to call it *Scheurbuyck* or *Tear-belly*; alſo *de Blawe Shuit*, from thoſe blew ſpots, that haunt Scorbutick Legs. From the ſtink of Breath and foulneſs of the Gums, the Italians name it *La Marcia di Bocca*, or *Scornobocca*, implying a corruption of the mouth. But if it be proper to derive the denomination of a Diſeaſe from its chief Symptoms, the word *Gingipedium* (*craſſa & pingui Minerva*) expreſſeth its nature more amply, declaring it moſt incommodious (*gingivis & pedibus*) to the gums and legs; and it may be conjectured, this kind of Nomenclature was twiſted together out of thoſe two Antick

words latinized στοματάκη and σκελοτύρβη, the former denoting a foulneſs of mouth, from στόμα κακία; or a foul mouth, from στόμα κακὸ, the latter being expounded a Diſeaſe of the legs, as may be inferred from *Pliny Hiſtor. Natur.* lib. 35. cap. 3. *In Germania trans Rhenum caſtris a Germanico Cæſare promotis, maritimo tractu fons erat aquæ dulcis ſolus, qua pota intra biennium dentes decideren, compageſque in genibus ſolverentur, ſtomacacen Medici vocabant, & Scelotyrben: i. e.* The *Campagne* being removed by *Germanicus Cæſar* to the other ſide of the *Rhyne* in *Germany*, there was onely one Fountain of ſweet water, in a tract near the Sea, whereof drinking, in two years time their teeth would fall out, and the compoſure of their knees would be quite relaxed; the Phyſicians called it *Stomacace* and *Scelotyrbe*.

§ 3. The uſe of theſe words ſeemeth to be of a far ancienter date, than *Pliny*'s age, ſince *Strabo* a Subject of *Auguſtus Cæſar*, in the Six th Book of his Geography, about the end,

end, relates the Roman Army, that was tranſported into *Arabia*, to be infeſted with a Diſeaſe called *Stomacace* and *Scelotyrbe*. *Galen* alſo in that Book *de Definitionibus Medicis*, makes mention of a *Scelotyrbe*. But not onely, whether thoſe Maladies implied by theſe two obſolete words, but whether thoſe great Spleens deſcribed by *Hippocrates de Morbis Intern.* 2. *Præd.* 2. *Prognoſt.* the Black Jaundice, the *Ileos Hæmatites*, or the Black *Vitiligo* (being a deformity of the Skin, haunted with large duskiſh ſpots) be not the ſame Diſeaſe, Modern Phyſicians term the *Scorvey*, hath been controverted by moſt, that have handled this Subject. That each of theſe have a reſemblance in their Cauſes and Symptoms to the *Scorvey*, needs no debate; for according to *Hippocrates* in the præcedent Citation, in thoſe great Spleens *The Belly is puffed up, afterward the Spleen doth alſo ſwell, and is hard, and acute pains happen to the Spleen, the colour is alſo changed and looks black, pale, and like a Pomegranate ſhell; and an ill ſmell cometh out of their mouth, and the gums ſcent ill and ſeparate from*

the teeth; and on the legs there break out Ulcers, alſo nocturnal Puſtuls; and the parts are extenuated, and their ordure is not evacuated. The *Ilios Hæmatites* is alſo decipher'd with features not unlike the former: *The Diſeaſe*, ſaith *Hippocrates*, *beginneth about the Autumn, and therein theſe things happen: There commeth an ill ſcent out of the mouth from the teeth, and the gums ſeparate from them; and blood floweth out of the noſtrills; and ſometines ulcers break out on their legs, and other things appear, and the colour groweth black, and the skin thin.* The curioſity prædominating ſo much among Authors, touching the identity of primæval and ſubſequent Diſeaſes, might be conſtrued very ſuperfluous; for the reſult, whether it be ſo or not, contributeth no more light to the ſcrutiny of the *Scorvey*, than a Candle to the Sun at Noon-day; though perchance *exercitii gratia*, and for reputation of being verſed in Antick Lectures, it may be permitted to be ventilated. The opinion of the major part of the learned, infers from the near alliance of Symptoms,

ptoms, the *Great Spleens* of *Hippocrates* to be the *Scorvey*; and ſome others by the ſame reaſon are convinced, the *Black Jaundice*, the *Ileos Hæmatites* and *Black Vitiligo*, are no other. If this inference be received, Hypochondriack Melancholy, Hyſterick Paſſion, Quartan Ague, and moſt other Splenetick Maladies, may be reduced as *Species* to the *Gender* of the *Scorvey*. But upon a ſtrict ſurvey your æſtimate will conclude, that the diſtinction of Diſeaſes doth not depend ſo much on common accidents, as properties; or to ſpeak phyſically, on Pathognomonics, derived from a Specifick qualification, in their Cauſes, Parts affected, and Symptoms. Thus the proegumenal cauſe of the *Scorvey*, though its vulgarly attributed to Melancholy, or rather Salt vitiated or degenerated to a præternatural, and in that qualification may be a common parent to this, the *Great Spleens*, *Black Jaundice*, and the reſt; yet the more nice inſinuation of others hath detected the Salts of the Blood ſo ſpecifically receded from their natural Conſtitution in the *Scor-*

vey, and to have indued ſuch peregrine qualities, that they are not capable to give birth to any other Diſeaſe than this. Moreover, by moſt the part affected and harth of the præalleged diſtempers, are determined unically the Spleen; in the Scorvey the Stomach (by ſome the *Pancreas*) the Spleen and Liver; and ſome do alſo accuſe the brain, though *per deuteropathiam*. Among the Symptoms the difference is moſt perſpicuous, the exufflation of the Spleen is not alwayes diſcovered in the Scorvey, though in great Spleens never abſent: In the *Ileos Hæmatites* there is loſs of blood by Stool, attended with tearing Gripes; which in this diſtemper is not aſſumed for a Pathognomonic. The Scorvey: is particularly malignant, becauſe it is contagious, and ſo radicated, that for ſome months, and fræquently years, it doth prædominate over the moſt potent of Medicines; and Infants oft bringing Scorbutick Seminaries with them into the world, ſpeak it hæreditary; inſomuch that on ſome Families the Scorvey hath been intailed with their Eſtates.

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Theſe Prædicates certainly are not convertible with the fore-mentioned Diſeaſes, and therefore ought not ſo raſhly to be pronounced the Scorvey; which moreover is *Endemick*, the others *Epidemick* and *Pandemick*. Thus far no ſenſible error can be incurred, if upon compriſe of the whole, theſe Diſeaſes are conceded to be Scorbutick, in the ſame terms, as one may aptly explain a Pleuriſie, an *Empyema*, an Inveterate Cough, and many other Pulmonic Diſeaſes, *Aſthmatic*, but not an *Aſthma*; unleſs derived from Saline Scorbutic *Procatarctic* and *Proegumenal* Cauſes.

§ 4. The *Scorvey*, in reſpect of its primar appearance, ſeems to bear no certainty in Chronology, ſince ſome deſcribe it a diſtemper, that for ſome Ages hath harraſſed the crazy inhabitants of the world; others will not allow it a Diſeaſe of longer date, than Authors of the laſt Century record its firſt budding among the Danes, Saxons, and Weſtphalians; which is within the time of Two hundred years at moſt. This latter ſentiment is eaſily ſup-

ſupported by this Argument; *viz.* No Diſeaſe deſcribed by any of the Greek, Latine, or Arabian Phyſicians, doth exactly quadrate in Parts affected, Cauſes, and Symptoms with this Northern Scorvey; and therefore may be inferred a new up-ſtart Diſeaſe: eſpecially that ſort of Scorvey, which in my *Little Venus* I term *Epidemick.* Probably an objection may be offer'd, that ſince thoſe Procatarctic and Proegumenal Cauſes, had their being many Ages paſt, and conſequently an influence on humane Bodies, they muſt neceſſarily (according to that trite Axiome, *Poſita cauſa ponitur effectus*) have conſtituted their effect, *viz.* the Scorvey. To this is replied, Hiſtory maketh no report of thoſe occaſions, that are impowered to produce this Malady. The Græcians, among whom thoſe great Spleens of *Hippocrates*, being neareſt of kin to the Scorvey, were ſo popular, lived in a benign air, and were conſtantly imployed in Warlick Exerciſes, whereby they were diverted from Melancholy, or other dull Paſſions, from Exceſs of Sleep or Sloath,

Sloath, and other inconveniences: ſo that thoſe External Cauſes, that now concur in the production of the Scorvey, had no prævalence on them; and therefore improbable, our Diſtemper ſhould have been engender'd then, or any time before. But waving other Cauſes, and conſidering only, it is an *Endemick* Diſeaſe, which hath its chief dependance on the Air, and particular diſpoſition of the Clime, wherein alterations happen by evaporations from Sea or Earth, and Cœleſtial Irradiations, which being ſo various and fræquent, it's no wonder, if the Scorvey be a recent production, or if every moneth or year Diſeaſes of new aſpects emerge.

CHAP. II.

Of the Mouth-Scorvey.

1 *The general kinds of the* Scorvey, *and what the* Mouth-Scorvey *is*; *the degrees of the* Mouth-Scorvey. 2. *That little hard Swellings of the Mouth and a* Ranula, *are Scorbutick.*

tick. 3. *That a vagous recurrent Tooth-ache is Scorbutick.* 4. *What a* Scorbutick Thruſh *is.* 5. *The variation of the colour of the Gums in the* Scorvey. 6. *That a* Stinking Breath *is Scorbutick.* 7. *That ſmall Fiſtula's in the Angles of the Mouth and Root of the Gums are Scorbutick.*

INto two great branches the *Scorvey* ſeems to be divaricated, namely a *foul Scorbutick Mouth*, or rather the *Mouth-Scorvey*, and *Scorbutick Legs*, or *Leg-Scorvey*; to which very aptly a third may be added, to wit the *Joynt-Scorvey*. The former conſiſts of Swelled, Laxe, Spungy, Diſcoloured, ſore Gums, looſe Teeth, that in proceſs of time do inevitably rot or cariate, and a ſtinking Breath; which as they aſcend through various degrees to an extremity, do render the diſeaſe very incommodious, haveing obſerved the tumefaction of the Gums in ſome ſo luxuriant, as to obſtruct the Lips in cloſing, appearing more like a *Fungus* grown to the Jaw, then Gums; on the contrary in o-

thers

thers, the Gums have been intirely corroded away, so as the γόμφοσις, or juncture of the Teeth, and Jaw, might have been evidently discerned; and you may receive it for a truth, that the corrosion was continuated with that rapid violence, in the Lips of a certain Scorbutick Dutchman, who for cure was admitted into the Hospital at *Leyden*, that being quite devoured, the Teeth were left bare, and exposed to the Air: wherefore note, that the first degree of a foul or putrid Mouth is a swelling of the Gums, through a thin serous or ichorous blood, soon after disposed to be pressed out of its bounds, with the least touch of a Finger, insomuch that it's fræquently observed, that Scorbuticks biting a peice of bread, the remainder in their hands will appear all bloody about the edges: Hereupon the Gums fissure or cleave, afterwards changing into phagedænic ulcers, which not seldom are succeeded by malignant cancerous ulcers, threatning an extream deformity and devoration of all the circumjacent parts.

2. More

§ 2. More than once I have given advice for little hard unæqual ſwellings about the inſide of the Lips, ſometimes under the Tongue, of a livid, or not infræquently of an aſh colour and dolorous. Theſe by Chyrurgions are termed Cancers of the Mouth, and indeed are little leſs than Canc-rous, and conſequeutly Scorbutick. Neither would I have you judge it a Paradox, if I aſſert an Endemic Cancer in whatſoever part, to be an extream degree of a *Scorvey*; as hereafter may be more plainly repræſented. Of the nature of the præmiſed Cancers in the Mouth, doth participate a *Ranula*, a Tubercle under the Tongue, ſo called, becauſe being an impediment to the free motion of the Tongue, in pronouncing words, that contain the Liquids *L* or *R*, it occaſions them to ſound frog-like. The Cure hereof is vſually attempted by Aſtringents and Acids, as Oyl of Vitriol and others, whence ſeldom or never a ſucceſs being anſwered to the intention of the Chyrurgion, converts his hopes to the ſharp Steel, or the Fire. But were it

ſup-

ſuppoſed ſcorbutick, as many other ſigns accompanying, do certainly evince it to be, might infallibly perform the Cure by a Scorbutic Topick.

§ 3. A vagous re-current Tooth-ach, eſpecially in Women, doth often act a part in the *Syndrome* of a *Mouth-Scorvey*, which in diſtinction to the ordinary Tooth-ach, hath concomitant a very grating pain, with a violent ſalivation of thin ſaline Rheum; and as it is that, which for Cure hath been an *Opprobrium Medicorum*, for their fruſtraneous applications, ſo the moſt facile and indubious method of ſolaging this pain by Antiſcorbuticks, is an argument, there hath been a Hallucination, in diſcerning the true cauſe of it.

§ 4. *Grandines*, or little whitiſh hard ſwellings, of the bigneſs of a Radiſh ſeed, with a ſmall perforation in the middle, and running about the Tongue, Gums, Palate, and inſide of the Cheeks, is a Scorbutick Thruſh, and cured onely by Antiſcorbuticks.

And

And thoſe that have been curious Obſervers in their practice, can atteſt, there is a periodical ſwelling of the *Tonſils* (or Almonds under the Ears) and a relaxation of the *Uvula* and Palat, which muſt be accounted amongſt the Diagnoſticks of a *Mouth-Scorvey*; and ſuch being render'd infinitely worſe by the uſe of ordinary aſtringents, I have cured with a Gargariſm of *Betony*, *Sage* and *Scorvey-graſs*, Elder and Roſemary-flowers, and Nettle-ſeeds, boyl'd in white Wine and Water, with a few drops of ſpirit of *Sal-armoniac*, inſtilled into the decoction; but not without aſſiſtance of internal Medicines.

§ 5. The diſcoloration of the Gums in a Scorbutick Mouth firſt appears in a deep red, afterwards in a ſpotted yellow, then duskiſh and leadiſh, and at laſt a cadaverous pale, or a cancerous black. The Veins about the Gums, under the Tongue, and the inſide of the Lips, ſhew unæqual, ſwell'd and ill-colour'd. The ſoreneſs of the Gums feels ſometimes burning, or as if prick'd with Needles; other

other times the pain lies deep about the *Perioſtium*, or Membrane of the Jaw, not unlike the Tooth-ach.

§ 6. Among the Pathognomonics of a *Mouth-Scorvey*, none is more certainly concomitant than a Stinking Breath; inſomuch that it is beyond all contradiction, where there is a continual ſtink of Breath, (evident cauſes, as Ulcers of the Mouth, Throat and Lungs always excepted) there is a confirmed, or at leaſt a growing *Scorvey*: and among all thoſe Scorbuticks I ever was concerned with in relation to their cure, I never found that ſymptom abſent; which if by the courſe of ſome years it be eſtabliſhed in a deep radication, is refractory to all cure; if recent, all hope is repoſed in a ſtrict Scorbutick method. And for this ſo ungrateful ſymptom, the ſole Specifick is the Urinous Spirit of *Sal Armoniack*. Now upon the Aſſumption, that the *Scorvey* is an *Endemick* Malady to our Iſland, you muſt ſuppoſe a ſtinking Breath very popular, which indeed will not be diſputed by one, that poſſeſſes the right uſe

of his Noſe; and thoſe that are exquiſitely ſenſible in that Organ, ſhall tell you, that the Cabins of Ships expire a ſtronger Air of Scorbutick ſtinking Breaths, than of Pitch or Tar.

§ 7. This Chapter we will limit with the ſubnexion of another Scorbutick Symptom, not much receding from a ſtinking Breath, *viz.* *Fiſtuls* in the Angles of the Mouth, and Root of the Gums, which being ſqueezed three or four times a day, render a very putrid matter, the ſpring whereof is ordinarily deprehended in a Scorbutick ſmall Glandul.

CHAP. III.

Of the Leg-Scorvey.

1. *A Deſcription of the Leg-Scorvey.* 2. *A more ample Declaration of its Symptoms.* 3. *Of Scorbutick Ulcers.* 4. *Of Scorbutick Leg-pains.* 5. *Of Varicous Legs.*

§ 1. THe *Scorvey* particularly exerting its enmity on parts ſo diſtant as the Mouth and Legs, ſpeak

it a Diſeaſe, requiring a more diſtinct Conſideration; and therefore as in the former, ſo in this latter is deſigned to give you a very articulate Deſcription: but obſerve by the way, that a laſſitude and feebleneſs of the Knees is common alſo to a *Mouth-Scorvey.*

The *Leg-Scorvey* comprehends a great laſſitude and weakneſs of the Knees and Ankles, ſpots and blotches of ſeveral figures and colours on the Shins, and particularly juſt below the Knee, and alſo near the Ankles, Puſtuls, uneven Tumours and Tubercles of Purpre Variegated Red. Oedematous Legs, with thick, hard, callous, livid, or ſometimes brown red Skin about the Ancle, ulcers on the Shin, and near the Ankle, pains of the Knees, likewiſe deep pains along the Shinbone, continuing all day, but raging moſt in the night, are all fræquent concomitants of the *Leg-Scorvey.*

§ 2. The feebleneſs of the Knees and Ankles coming gradually upon you, without any evident præceding Diſeaſe, or any ſuddain alteration of looks, or habit of body; is an *Item*

ſufficient to imform you what's at hand: Namely, Spots firſt red, and then yellow, livid, and at laſt of an aſh colour; upon this expect blotches along the ſide of your Legs, appearing firſt reddiſh, then yellowiſh very like an *Eryſipelas*, but yet different from it, becauſe there is not that heat and ſmart in Scorbutick blotches; neither are they ſo fiery, or corrodeing, as to be converted immediately into ulcers, but grow rough and peel off. Theſe generaly are ſucceeded by puſtles, turbercles, or boiches and tumors; at firſt of an uncertain colour, in one part deep red, in another pale; though upon a ſmall interval of time turn deep red all over, growing exceeding painful and hot, a ſign of their being ready to burſt out into Ulcers, or naſty Scabs.

§ 3. Scorbutick ulcers, eſpecially thoſe on the Shins, and near the Ancle, upon a ſhort continuance grow callous about the Lips, within painful, as if prick'd with Needles; their fleſh appearing torn, uneven, of an ill aſpect, the Lips tumid, the matter undigeſted thin,

thin, and ichorous, at length turns ſordid, phagedænic, and cancerous; the bone underneath contracts a *Caries* or *Spina Ventoſa*.

§. 4. Scorbutick *Leg-pains*, either haunt the Tendons about the Knee and Ancle, or the Membranes of the Muſcles, or the *Perioſtium*. A Tendinous pain, is a ſhrinking or contracting Soreneſs; that of the Membranes of the Muſcles ſharp and diſtending, that of the *Perioſtium* contunding and grating.

§. 5. To theſe add a *Varicous Leg*, when the Veins are Tumefied to an extraordinary Protuberance. The Effect of all theſe præmiſed Symptoms doth for the moſt part Reſult into Groſs, Deformed, Tumefied Legs, ſome appearing full of Botches, others Tumefied, ſo as to pit upon the preſſure of a Finger, and variouſly Diſcolour'd all over, like the Shins of thoſe, that ſit too near the Fire in the *Winter*; ſuch Monſtrouſly Tumefied Legs are frequently obſerved amongſt *Dutch* Skippers.

CHAP. IV.

Of the Joynt-Scorvey.

1. *Symptoms of the Joynt-Scorvey.* 2. *Deſcription of the Joynt-Evil.* 3. *External Rheumatiſms Scorbutick.* 4. *Internal Rheumatiſms Scorbutick alſo.* 5. *Frangibility and Cracking of the Joynts.* 6. *The Gout is not a Pain in the Joynt.* 7. *The Seat of the Gout.* 8. *The kinds of the Gout.*

§. 1. THat they are incommoded with an Univerſal Soreneſs of Limbs, eſpecially Arms, Shoulders, Neck-bones, and along down their Back, about the Breſt, and round the Middle, with a Laſſitude, or Wearineſs, and no Diſpoſition at all to ſtir or move, but inclined to Drowſineſs and Heavineſs, is the Complaint of many, upon the leaſt alteration of Weather, who beyond all (peradventure) muſt be termed troubled with the *Joynt-Scorvey*; provided the ſaid Laſſitude be not ſuch, as ordinarily is a præcurſor to a Fevor. Neither

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is this Species, or ſort of Scorvey only circumſcribed with the prænumerated Symptoms, but is alſo applicable to thoſe, whoſe Articles or Joynts are ſubject to Crackle upon a ſudden Motion.

§. 2. The Scorvey infeſting the Joynts, doth by means of an Afflux of Virulent Humors, not ſeldom produce groſs Tumors and Tubercles, of a fiery purple appearance, and a very painful Senſation, to which is conſequent an Immobility of the Articles, and not long after the Skin being ſo Cancerouſly tumefied, as frequently happens about the Joynts of the Fingers, Knuckles, Wriſts, Elbows, Knees, Ancles and Toes, is perforated by an Ichorous, Raw, Indigeſted, Thin, Serous, Livid, and ſometimes yellow *Sanies* or Matter, which Cleeting through a ſmall Orifice, that ſoon grows Callous, and therefore not being totally and freely Evacuated, occaſions the Bone to Cariate, which commonly by Exfoliation, or rather Corroſion, Nature doth expel in little ſhatter'd mouldering ſplinters. The

impure Nutriment the Conception aſſumeth in the Womb, rendreth Children more ſubject to this kind of Scorvey, than others of Riper years, and is vulgarly ſtiled the Joynt-Evil, and ſome will know it by no other Name than the Kings-evil, which properly denotes only Scrophulous and Strumatick Kernels and Tumors, though beyond all ſcruple are of the ſame Production with the former, and conſequently highly Scorbutick. Neither are a *Fiſtula Lachrymalis*, and other malignant Iſſues near the Angles of the Eyes, or thoſe *Epiphora's*, or runing of the Eyes, different in Cauſality and Conſtitution from either of the fore-mentioned.

§. 3. Another ſort of Joynt-Scorvey is ſpecified in Rheumatiſms, which generally declare themſelves by pains of the Joynts, or rather in ſome by Tortures of the extream Articles, as Wriſts, Knuckles, Joynts of the Fingers, Elbows, Shoulders, Hips, Knees, Ancles, Toes, and worſt of all, when the impetuous flood of Salin Rheum ſtreams to the Neck, and Back-bone.

(*Spina*

(*Spina Cervicis & dorſi.*) Pains of this Nature are ſo Violent, that for Acuteneſs are not parallel'd by ordinary Gout-pains. In like manner this ſort of Rheumatiſm doth oft rudely afflict the ſides of the Head, decurring from the *Bregma*, to the upper and lower Mandibles, and Roots of the Teeth, ſhooting like Darts from one part of the Head to the other, and with ſo quick a Perculſive motion, that Lightning and Blaſts ſeem ſlow to it.

§. 4. Practical Obſervations declare to us a two-fold Rheumatiſm, External and Internal. The former is juſt now præmiſed: The latter is diſcovered by Internal, Acute, Fugitive pains, moving Erratically from one Bowel to another, thence poſſibly to the Guts, and thence again it may be to the Ambient Skin, or to ſome other Bowel, or the Breſt; the quality of theſe Internal pains, is for ſuddain and violent Motion, reſembling External Rheumatiſms; and for Acuteneſs, forceth the Patient to ſcriech out, lamenting his pain

pain, now in one place, præſently after in another, and ſuddenly again in another, to no ſmall Amazement of his Viſiters; ſince for a ſmall interval being free from pain, feeling himſelf very well, and entertaining his Friends with Diſcourſe, on a ſuddain a ſhooting pain ſhall take him, and alter the Scene to a contrary Diſpoſition. Internal Rheumatiſms are generally of a tædious continuation, though the pains are far more brisk at one time than another, and ſometimes do make a Truce with the Patient for a few Dayes or ſometimes Weeks, but in the interim detain him in a neuter Eſtate, which can be determined neither well nor ill, but weak; and thus I have heard of ſeveral, whoſe Recovery was ſcarce accompliſht in ſeveral Years; but that might partly be imputed to the ill addreſs of the Phyſician, being unskil'd in managing that Diſeaſe.

§. 5. Among divers Joynt-Scorbuticks, it hath been Remarked, their Bones have been very Frangible, that upon very ſmall occaſions, they have had the misfortune of breaking their Legs,

Legs, Arms, Bones of the Hand, and Fingers; but before this can arrive, another Symptom doth ever præcede, namely, a Cracking and Noiſe of the Joynts, when they are moved. It argues him much a ſtranger to Practice and Experience, that never obſerved an Arthritick or Gouty-Scorvey, being ſuch a ſort of Counter-natural affection, as beſets the parts near the Joynts with *Corroſive* Salin Ichors, and through them attaques them with very Lacerative and Terebrating pains, and ſuch as commonly in the Night ſeaſon Duplicate their Fury. In this Diſeaſe, as it's Genuine diſtinction from other Gouts, would certainly very much conduce to the Solacement of the Patient, and his compleat Recovery; ſo it would no leſs add to the Reputation of the Phyſician, and therefore ſhall in their places amplifie upon it's Deſcription, Cauſes, Signs and Cure.

§. 6. Two Bones being tied together, that place where they meet is properly termed the Joynt, from being joyned together, or Juncture, or Articulation. Phyſicians alſo ſtile it an

an Article, but improperly, the word *Articulus* importing a Diminutive of *Artus*, Latiniz'd from ἄρτος, a Member. Moreover, Bones that are Diarthrotically joyned, are faſtened together, beſides particular Ligaments, by a common Ligament or Band growing uſually from the lower part of the Apophyſe of one Bone, and inſerted into the upper part of the Apophyſe of the other Bone. This common Ligament or Band is in point of ſubſtance tough, thick, denſe and extenſive, and by reaſon of its cloſe Compacture, and immediate Adhæſion and Circumveſture, doth refuſe paſſage to all Arthritick humours, whence may be Deduced, the Gout is not properly to be termed a Joynt-diſeaſe; whereunto this Inſtance contributes an unquæſtionable Evidence, that the Internal parts of the Joynt being Cartilaginous,and the Ambient parts Ligaments, are both Inſenſible and Incapable of Senſation: So that we muſt conclude the Univerſal Sentiment upon this particular a vulgar Error, growing from an Inadvertency and blind Ignorance in *Anatomy*.

§. 7. We

§. 7. We are therefore to ſtate the Parts neareſt adjacent (above or below) to the Joynt, the Seat of the Gout, which by reaſon of the Termination of the Tendons, and Circumveſture of the *Perioſtium*, are exquiſitely Senſible, and expoſed to the greateſt Tortures.

§. 8. The Joynts that are moſt commonly haunted by the Gout, are the Hip, where it's called the *Sciatica*, or Hip-Gout; the Knees, where it's termed the Knee-Gout, or *Gonagra*; the Feet, which comprehends alſo the Ancles, and here it's named the *Podagra*, or Foot-Gout; and the Hands, including alſo the Wriſts, thence called *Chiragra*, or Hand-Gout. Beſides theſe, moſt other Joynts, as Shoulders, Elbow, and Back and Neck-bones, are ſometimes alſo attacqued by thoſe furious pains. Why theſe laſt recited Junctures are not ſo much expoſed to Gout pains, as the former, is, becauſe being wrapt about with fleſhy Tendons, and Muſcles, receive thence a great aſſiſtance of heat and warmth, whereby the temperament of

of thoſe parts are much comforted, the External cold reſiſted, and thoſe Saline Acrimonious Ichors ſoon diſſipated.

The periodical Revolutions of theſe Arthritick Scorveys, are an Argument to me, they are ſubject to a Prædominance of both the *Luminaries*: For from the Seaſons produced by the Suns Peragration, they are Reſuſcitated Spring and Fall; and the *Lunar Circuits* occaſion their appearance, and Return in many Bodies as ordinarily, as the monthly Maladies of Women, ſcarce any Sex or Age under Twelve or Fourteen, being exempted from the fore-mentioned *Arthritick Scorvey*; But it's otherwiſe in the Gout, which ordinarily rather invades the Crazie Bodies of Super-annuated Perſons.

In contra-diſtinction to an *Arthritick Scorvey*, that's fixt to a part, *viz.* To the Hip, Knee, or Foot, as hath been juſt now Præliminated; there is alſo obſerved an *Arthritis vaga*, or Fugitive Arthritick Scorvey; but this being not different from an External Rheumatiſm, whereof hath been mentioned before, ſhall ſuperſede any further Explanation.

It

It will hardly eſcape the Animadverſion of many Peruſers, that I have beyond the Sentiment of other Phyſicians, reduced the Præternatural affections treated of here in this Chapter, within the Latitude of the Scorvey. Wherefore that I may not deſerve a Siniſter Cenſure, I will offer thoſe Arguments, that to me were ſufficient Motives, which if to others they ſeem leſs perſuaſive, I need only tell them, I may with as much right range them in the Train of the Scorvey, as *Eugalen*, *Solomon Albertus*, *Wierus*, and twenty more have given place to half the known Symtoms of the Diſeaſed Body of Man, in the Liſt of *Scorbutick Attendants*.

Touching the Inſertion of the Scorbutick Laſſitude in the firſt Article, all Authors that have Treated on the *Scorvey*, have granted that Symptom almoſt ſo Univerſal, as to be a Pathognomonick inſeparable.

In relation to that of the ſecond Article, moſt may find difficulty, to Identifie it with the *Scorvey*, ſince it's not eaſie to diſcern one and the ſame Diſeaſe, to be the ſame in two or more ſeveral

ſeveral Patients; much leſs a Diſeaſe that's ſo Various and Multiform, featured with ſeveral Shapes and Signatures in ſeveral Subjects: Wherefore I muſt be obliged to a Recital of certain Marks, and received Rules, whereby Authors do either Diverſify or Identifie Diſeaſes.

Cauſes of the ſame Nature and Efficiency, though Univocal, do not alwayes produce the ſame Effects, and therefore conſequently (though two or more Diſeaſes are engendred by the ſame Efficients, and out of the ſame Matter) they may be different Diſeaſes, whence may be objected, that thoſe Joynt-Diſeaſes, though iſſuing from the ſame Cauſes the Scorvey is derived from, it's no Argument they ſhould be termed the Scorvey. By this Aſſertion, the Peripatetick Maxim ſeems to be ſuſpected, *viz.* *Poſita cauſa, ponitur effectus*; *ergo poſita cauſa Scorbutica, ponuntur effectus Scorbutici:* And all Diſeaſes that are produced by a Scorbutick cauſe, muſt be the Scorvey.

You muſt obſerve the truth of this Theorem doth depend upon certain Limi-

Limitations, namely, a cauſe to be qualified to produce the ſame Effects, muſt be Univocal, and *a cauſa per ſe*; for otherwiſe (though granted Univocal) its cauſality may be *per accidens* Depravated, and Occaſioned to an Aberrancy by other cauſes: For inſtance in the Scorvey, imagine it's Production from a corrupt Melancholy, that may Stagnate in the Spleen, which being ſuppoſed in two ſeveral Bodies; in the one poſſibly it may conſtitute Symptoms, that are commonly Concomitants of the Scorvey; in the other, becauſe there may be a mixture of Vitiated Choler, or of a *Serum* affected with an ill Quality, or a great Infirmity of ſome Entrail; the aforeſaid ſuppoſed Scorbutick cauſe ſhall be ſo Obtuſed, Altered, or Indued with a different Efficiency, that the Diſeaſes ſo produced, ſhall be no Scorvey, but ſome other Counter-natural affection. This may alſo very properly be exemplified in Cœleſtial Cauſes, among which conceive a Planet in ſuch a Sign, and ſuch a Degree, by his influence to produce certain Effects, upon any ſuppoſed Sublunary

body; at its return to the ſame Sign and Degree, poſſibly it ſhall not be a cauſe of the ſame Effects, becauſe through the Radiations of other Firmamentary lights, it's influence ſhall be directed and limited to another Effect much different: Whence having rendred the Ground of the Variation of Symptoms in the Body of Man obvious, my next affair is to propoſe a Theorem whereby Diſeaſes are Identified.

Diſeaſes are computed the ſame, that are conſtituted by the ſame Univocal Cauſes, not aberring further *per accidens*, than that thoſe ſymptoms that are effected *per ſe*, may in Number and Specification exceed thoſe, that are produced *per accidens*. Moreover, Diſeaſes by their Intrinſick ſignification imply Parts primarily affected, whereof they are Diſeaſes; and therefore Diſeaſes cannot be Idenfied, unleſs the parts affected primarily be the ſame; which we muſt now explain to be the ſame in the *Scorvey*, and in the *Joynt-Evil*, and *Gout-Scorvey*. None vary from this Opinion, that the parts Primarily and Original-

ly

ly affected in the *Scorvey*, are all the chief parts of the *Inferior Cavity*, that appertain to the *Natural Faculty*, whoſe office is to Confect the Chyle, Elaborate and Depurate the Blood, which are the Stomack, Spleen and Liver.

The Chyle in thoſe, that are afflicted with the *Gont* and *Joynt-Evil*, receiving a Malign Tincture and Impreſſion, from an ill qualified Diſſolvent, is a prægnant Evidence, the Stomack is a part affected; and the aforeſaid Chyle upon its arrival within the Spleen and Liver, induing a quality of a Malignanter efficacy, expreſly proves, both thoſe Entrails æqually parts affected, and conſequently the parts radically or primarily affected are the ſame.

Neither can I diſcern any difference in the Cauſes of both, reſiding in a corrupt Salt, fixt or volatil. It muſt then be the difference of ſymptoms, that creates ſuſpicion of the Diverſity between theſe Joynt-Diſeaſes, and the *Scorvey*, which as was intimated before, may be remarked in all Univerſal Diſeaſes, varying in

two or more Bodies, in ſeveral ſymptoms, and yet are deemed the ſame Diſeaſe: A continual acute Feaver (which I call an Univerſal Diſtemper, becauſe it's ſymptoms are Univerſal, and diſturb all the parts of the Body in their ſeveral Functions) in one is attended with Vomitings, in the other with a Looſeneſs, in a third with neither; which nevertheleſs, are known and determinated Concomitants of a continual acute Feaver in all. In this Labyrinth, the Poſition ſtated in the beginning of this Paragraph, conducts me to an Expedient of ſurpaſſing the difficulty, *viz.* The ſymptoms that Identifie Diſeaſes, do immediately, and *per ſe*, emanate from them, in or near the parts affected: For inſtance, if the Heart be ſeized with a Diſeaſe, the Pulſation doth generally expreſs it, being a ſymptom that immediately conſecutes the Diſtemper in the part affected, which is the Heart; the like may be obſerved in all Diſeaſes. Theſe muſt be ſuch as properly are terms *Pathognomonick*, and by Induſtry, and fræquent Experience, may be diſcerned in moſt Diſtempers,

ſtempers, though ſymptoms that are occaſioned *per accidens* are Infinite, and common to many Diſeaſes. Now to our Affair; In the recited *Joynt-Diſeaſes*, and *Gout-Scorvey*, the radical ſymptoms are an ill Confection of the *Chyle*, or a vitiated Elaboration or Depuration of the *Chyme*; a propagation of Malign Seminaries, in the Bowels and Blood, that renders Diſeaſes contagious, Hæreditary, and moſt Obſtinate; theſe being likewiſe ſymptoms in the *Scorvey*, I judge I have juſtly Identified them; but that will more amply appear in my ſubſequent Diſcourſe. Add hereunto, that in Identified Diſeaſes, the Procatartick cauſes are the ſame, which in theſe various kinds of the *Scorvey*, is verified in a Salin Air and Diet, whence both the Internal, Antecedent and Continent cauſes afterwards take their Original, which alſo for a certain ſpace continue the ſame, until that by a continuated morbifick Action and Calcination, they paſs into a contrary Nature, from an *Acid*, to an *Alcali*, as among *Chymical* proceſſes, appears in *Acid Tartar*, which by Calcinati-

on makes a Tranſition into an Alcalious Salt of Tartar; nevertheleſs as the *Acid Salt* of *Tartar*, and the Alcalious Salt of Tartar, though contrary, do both retain the ſame name of *Salt of Tartar*; ſo an Acid *Scorvey*, and an Alcalious *Scorvey*, retain the ſame Denomination of a *Scorvey*, or are Identified in the ſame Name. Before I limit this Chapter, I muſt propoſe an Argument of a greater Conſequence, namely, That thoſe *Joynt-Diſeaſes* and *Gout-Scorvey*, are only to be removed by an Antiſcorbutick courſe; but not ſuch as is directed by the præſcriptions of the Vulgar, who are as blind in theſe Diſtempers, as they commonly are in Feavers and *Small-Pox*.

CHAP.

CHAP. V.

Of the Causes of the Mouth-Scorvey.

1. *A scrutiny into some Procatartick and occasional Causes of the* Mouth-Scorvey. 2. *The Internal cause of the* Mouth-Scorvey *proved.* 3. *The præparation of* Mercury Sublimate *corrosive examined.* 4. *The Spittle is Imbued with several sorts of Salts at several Seasons.* 5. *That it is not every Acid is the cause of the* Sorvey. 6. *Of Spirit of Salt, Nitre, Vitriol, and Tartar.* 7. *That some Acids are good Remedies against the Scorvey.* 8. *Chymical Theorems.* 9. *Turbith Mineral examined.* 10. *How a Salivation is Occasioned.* 11. *Observations upon the Dissection of the Stomach.* 12. *Why one is apt to Spit after the taking of any ungrateful Medicine.* 13. *Animadversions upon the Ferment of the Stomach.* 14. *The* Succus Pancre-

aticus Silvii *rejected.* 15. *That the* Succus Pancreaticus *doth never* Secundum Naturam *flow to the Stomack; that naturally it is not Acid, but Sweet.* 16. *Why Nature hath endued the* Pancreatick *juice, with a lentour and ſweetneſs.* 17. *Proof that it is ſweet.* 18. *Why the Stomack is provided with ſo great a number of Lymphatick Channels. The manner of the Concoction in the Stomack.* 19. *That the Digeſtive faculty is moſt potent about the upper Region of the Ventricle.* 20. *The manner of ſeparation of the Concocted from the crude Chyle, with ſeveral Remarks upon the Diſſolvent, or Mock-ferment of the Stomack.* 21. *The manner how Liquors turn Acid.*

§. 1. BY a Scrutiny into ſome Procatartick and Occaſional Cauſes, we may poſſibly be Conducted into a Path, of diſcovering the Immediate and Continent cauſality of the *Mouth-Scorvey*; and therefore converting our Obſervation on the Effects of *Spirit of Vitriol, Nitre, Vinegar*, &c. We ſhall

ſhall on the æſtimate of the uſe of any of them, mixt with Powders into Dentifrice, or Inſtilled into a Liquor for a Collution of the Mouth, award, they are as offenſive as any Internal cauſe, by Rotting and Blacking the Teeth, raiſing Pain and Swelling in the Gums, and moving a thin Sputation.

§. 2. *Mercury* externally by Confriction forced into the Pores, or Internally taken in the form of a ſubdued *Sublimate*, or *Præcipitate*, ſoon Ravages the Mouth, exactly like, a Scorbutick Cauſe, ſince it forces up a Humour from within, that ſwells, Fiſſures, Ulcers, Pains the Gums and the Mouth, Looſeneth and Rots the Teeth, Salivates, and occaſions a fowl ſtink of Breath; all which ſymptoms, if we can demonſtrate to take their riſe from *Effluviums* iſſuing from an Acid Salt, mercurial præparations have all their dependance on, and which within their moſt intime and centrical Particles, do contain a moſt Subtile Vibrating and Volatil Salt, will reſult into a præmiſs, whence no In-

Ingenious Reader, but with me, will conclude a *Mouth-Scorvey* to be Engendred by a corrupt Acid Salt rendred fluid, and a Volatil Salt converted into corroſive, inordinate in motion, and united with a Fuliginous Salt. That you may be convinced of this *Hypothetick* propoſition, take Inſpection into the various proceſſes of Mercurial Elaborations, where you find *Mercury* fixt (but very imperfectly) into *Præcipitates*, *Sublimates*, *Spirits*, and *Salts*, of divers Shapes and Colours, *viz.* Into White, Red and Yellow *Præcipitates*, by *Aqua Fortis*, *Spir. Nitr. Spir. Sal. Ol. Vitr.* all which, take notice, are vehemently Acid; and thence conceive, that the Volatil Salt, or Fugitive Spirits, latent in *Mercury*, are only to be tied by an acid *Vinculum*. If upon this you deſign to reduce *Mercury* (whether *Præcipitate*, or *Sublimate*, or any other Præparation) to its former ſhape of *Quick-ſilver*, it's eaſily attained, by freeing it from that acid *Vinculum*, in mixing it with a proportion of *Calx Viv. Gypſum*, *Soap-aſhes*, *Sal Tartari*, &c. and driving it through

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a Retort, whereunto it readily yields by means of those Alcalized, or fiery fixt Salts, mortifying the *Acid*. So that by the Rule of Contraries, if an *Alcali* reduces *Mercury*, the Consequence is, it was detained by an *Acid*.

§. 3. The Sequel is farther illustrated in the præparation of *Sublimate Corrosive*, the *Quick-silver* being first grinded with *Salt Peter*, *Vitriol*, or *Common Salt*, wherein being latent a most potent *Acid* (as appears by their Reverberatory distillations) doth soon invade and penetrate the body of the *Mercury*, and thereupon encountring with its most subtil and fugitive *Minims*, arrests, and in some degree doth fix them, qualifying their Volatil levity with it's ponderous *Acid*, and therein it's discernably assisted by affusing a few drops of distilled Vinegar, or other Acid Spirit, whilst the Salts and *Mercury* are grinding together. Upon this Mixture, that Salin Lixivious taste of the Salts, before their Coalescence with the *Mercury*, is changed into a pontick Acid

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Acid taſte. And becauſe *Therebenthine* is ſo prægnant of an Acid ſpirit (as the Rectified ſpirit thereof to the Tongue, is a palpable proof) it's therefore the chief reſine, that is capable of ſubduing *Mercury*, whereunto it's Lentour and Glutinous faculty doth very much contribute.

§. 4. Hence let us make a nearer approach, to what is a Branch of my Subject, and neceſſarily conclude, that Spittle (*Saliva*) is endued with a Turgency of Acid Particles, far more potent, than ſharp diſtilled Vinegar, becauſe it's ſo effectual in Amortizing or Fixing *Quick-ſilver*, which may likewiſe be performed by the Acid juice of Limons: But obſerve likewiſe, that Spittle is rendred Acid, only towards the latter end of the Concoction of the Stomack, from the Acour of the *Diſſolvent Liquour*, and therefore the Morning-faſting-ſpittle is recommended for the purpoſe above mentioned. Moreover, take this Remark with you, That the Spittle is imbued at ſeveral ſeaſons with ſeveral Salts; ſometimes with Volatil, other

ther times with Lixivial ſalts, ſometimes with Acid, and ſometimes with mixt ſalts, according to the contents in the Capacity of the *S*tomack, and about it's tunics; ſo that all ſorts of ſpittle is not proper for the Amortizing of *Mercury*.

§. 5. Now upon Compute of the whole matter, though your Reaſon may reap ſo much ſatisfaction, as to believe potent *Acids*, the ſole ſubduers of *Mercury*, and capable of arreſting its Fugitive particles; yet we muſt not be ſo facil, as to concede all *Acids* pernicious in the ſame Latitude with *Mercury* coagulated, of acting upon Liquours of the Body, and rendring them Scorbutick aggreſſors; for the greater number of *Acids*, Adminiſtred with rules of Caution and Prudence, obtaining a virtue of Repelling and Suppreſſing ſome kind of Scorbutick ſymptoms, bear an evident Teſtimony of the contrary.

§. 6. Spirit of *Salt Marin* (I mean not the *Græcian* Impoſtor's, but) dexterouſly præpared, according to the rules of the *Spagyrick Art*, hath acquired a good Character to ſome Phyſicians, for

for præſcribing it to their Scorbutick Patients: And I were to blame for my ſilence, ſhould I prætermit the great Effects of *Spirit of Nitre*, Philoſophically purged from its Arſenical fumes, not a few Scorbuticks owing their Recovery to this *Acid* from very obſtinate accidents, that were true iſſues of that Diſeaſe. Neither can the performance of theſe præcited inciding deoppilative *Acids*, be juſtly called into doubt, ſince from the Spirit of *Vitriol*, and *Vinegar*, (uſed in the Condiment of *Capers*, *Samphire*, &c.) though of a ſtyptick Energy, advantage hath been received in the Cure of Scorbuticks and *S*pleneticks: If then theſe Corroding and Cerberous *Acids* merit a reception ſo juſt among the *Apollinean* Faculty, certainly, thoſe that are acquainted with the true Proceſs of the *Acid* ſpirit of *Tartar*, being ſo Penetrative, Attenuating, Digeſtive, *Ecphractick*, and yet of an amicable Acour, can prætend to a greater ſecret to Eradicate the *S*corvey. By the way, obſerve, It is not againſt an *Acid Scorvey* they are ſuch excellent Remedies, but againſt

againſt a *Lixivial* one, which in the progreſs of this Diſcourſe will be farther Explained to you.

§. 7. From this Præcurrent Illuſtration, we may be aſſured in Opinion, that *Acids* by their native Qualification, or Corroſive to ſome Scorbutick bodies, and therefore it muſt be through a præternatural Affection, they are enforced to conſtitute the Principles of the fore-cited Malady. On this occaſion, it will not be Diſſonant, to Analyſe *Mercury* (as it is reduced to a *Præcipitate*, or *Sublimate*, or other Coagulated body, by acid Salts or Spirits) into its moſt Intime Syntheticks, whence the Genuine Procreatives of the *Scorvey* will more diſtinctly Emerge.

§. 8. In order to the Unravelling of this ſo cloſe knitted Mineral, I muſt firſt Repræſent to you theſe by me received *Hermetick* Theorems.

1. *All Alcalies are contrary to Acids, and conſequently do extinguiſh them, or if encountring in a leſſer proportion only præfract them.* Affuſe the *Alcalized* Liquor of *Tartar*, to the *Acid* Oyl of *Vitriol*, in their juſt proportion,

tions, the Production will be a Salt of *Tartar*, much præfracted in its Alcalized faculty, and a Salt of *Vitriol* much obtuſed in its Acidity; but if the Alcaly of *Tartar* be ſuperiour in meaſure to the *Acid* of *Vitriol*, then it doth reduce the *Vitriol* to a *Caput Mortuum*, and intirely extinguiſh its Acidity.

2. *All Volatil Salts are fixed by Acids.* The Volatil ſalt of *Hartshorn*, or Amber, being Irrorated with Spirit of Salt, is ſoon laid in ſleep, and loſes its Wings.

3. *There is no Alcali, but in its intime and centrical Particles, contains a moſt Acid, Corroding, and Perforating Salt. Likewiſe, There is no Acid Salt, or Spirit, but in its centrick* Particles is lodged *a moſt Igneous Alcaly.* Within the centrick of the Acid Oyl of *Vitriol*, there is an Igneous and Cauſtick alt.

4. *Volatil Salt is nothing but the fixt Salt of any Body, Volatilized by the admixture of Sulphurous Particles.*

5. *The Purgative, or Vomitive, or other active faculty of Bodies, doth Emanate from their Volatil Salts, either*

ther by Irradiation, or Atomical Efluviums.

From the Application of theſe to any particular Præparation, we are to expect, what now we Dive into. To this purpoſe, let our ordinary *Turbith Mineral*, as it is in the *London Pharmacopœa* Tranſcribed by our Phyſicians out of *Unzerus*, who Records the Invention of it to *Adam Bodenſtein*, be our Subject, as beſt known to my Peruſers, both for its Uſe and Proceſs; though poſſibly this remarque may eſcape their knowledge, that whereas Directions are given in the *Diſpenſatory*, for affuſing an Anatick proportion of dephlem'd Oyl of *Vitriol* to *Mercury*, purged from its plumbeous Recrements, which Evaporated, leaves a white reſidence in the bottom of the Bolthead, to be ſweet waſht into a yellow Powder; the præſcription of the fore-mentioned *Bodenſtein*, requires an addition of Salt of *Vitriol*, in proportion of half the weight to the Oyl of *Vitriol*, which renders the Reſult of the Elaboration leſs Churliſh, and more effectual.

Your view on this diſcerns the moſt compact body of *Mercury*, diſſolved by the Acid of *Vitriol*, its Fugitive ſpirits detained, or Volatil ſalt partly fixed by its Pontick Liquor, or Acid Salt, and through their mutual Re-action ſo Elaborated, that in this Conjunct ſtate have aſſumed neuter Faculties, not to be deprehended in either Singular: For the one is ſo eminent in the Adſtrictive, that in Hæmorrhages both Internal and External it performs, what other Reſtringents or Emplaſticks fail in. The other, *viz.* *Quick-ſilver* aims at no other Effects, than its weight or gravity is capable to produce; but upon their Coalition, they remove moſt obſtinate Diſeaſes by Vomit, Stool, Urine, Sweat, and Salivation.

From the Inference of the firſt and ſecond *Spagyrick Theorems*, you muſt be convinced, it is the Volatil Salt of *Mercury*, and no other Conſtitutive principle, is here Coagulated, becauſe performed by its oppoſite, a fixing Acid, and thereby ſomewhat præfracted; for through the abatement of its Vibrating and Penetrating

trating Faculty, it's experienced not so capable, to Amalgamate the nobler Metals into a *Calx*. From the repercussive particles of the said Mercurial Volatil Salt, the Acid of Vitriol is not only obtused, but rendred a dissolvent corruptive Acid, whereas naturally it's known a great Præserver from putrefaction and dissolution. And if you give credit to the fifth Axiom, which long Experience hath establisht firm and indubious among most Practicians; you must assert, not only the Vomitive and Purgative faculties to be issues of the Mercurial Volatil Salt, but also its Salivative quality; which explain'd in manner following, seems to me to be evident enough, how it exerts its power.

§. 10. *Turbith Mineral*, or other crude *Mercurial* præparation, is no sooner swallowed down into the Stomack, but through its most subtil volatil Salt, doth attaque the Salts, that are floating in the Liquor, the capacity of the Stomack is ever furnisht with more or less, (for an absolute drineſs, would certainly be attended

with a moſt dangerous Hiccoch, or Convulſion of the Stomack) which in ſome proportion converting into Particles of its own Nature, doth ſoon occaſion a Turgency in the Liquor of the Stomack, (being an Effect of the Contrariety and Combat between the *Mercurial Volatil Salt*, and the *Acid.*) And the Lymph contained in the Lymphaticks of the Stomack, which Turgency continuated to the *Ductus Salivales* under the Tongue, and the others that terminate about the Cheeks and Gums, cauſeth an overflowing of the foreſaid Lymph or *Serum*, where it's called Spittle or *Saliva*, *quaſi Sal Liquor*, *ceu Salſus Liquor*, or Salt Spittle, for ſuch it is. Here we muſt make a Digreſſion to a ſuccinct Explanation of the Fabrick, and Liquor of the Stomack, diſcovering the Nature of it, whence it Sourceth, and through what Creeks and Inoſculations it makes its Irruption, and thence it will prove more facil, by a further purſuit to render the manner of Salivation Obvious to the meaneſt Capacity.

§. 11. Ex

§. 11. Experiment in this Caſe makes the ſtrongeſt Plea, and therefore I will offer you my Obſervation, Upon the Diſſection of a Dog, fed with ſalt Meat intermixt with *Sublimate Corroſive*, and thereupon moſt thirſtily Lapping a great quantity of Water, wherein Peaſe had been boyled, and immediately ſtrangled. I was chiefly intentive on a ſtrict view and reſearch of the Stomack, in whoſe External Surface or Tunic, being a proceſs of the *Peritonæum*, the Cœliac Arteries appeared very tumid and full, and every where diſcernable to the Eye, accompanied with Lymphatick Veſſels, that were alſo no leſs Turgid, and ſupported by a number of ſmall Glanduls, which at other times remain hidden, becauſe there is not ſo great a Confluence of Lymphatick matter, to ſwell them up. The *Cruſta carnoſa* and the *Interior* Tunic, ſeparable in a Dog from one another, through this ſuperfluous Irrigation were Fungous, and upon a preſſure the *Lympha* exſtilled at little Pores or Orifices; which probably may be conjectured the extremities

of the Inoſculations of the Lymphatick Veſſels. The diſperſions of the Branches and Terminations of the foreſaid Cœliac Artery, through the middle and inward Tunic, were extreamly diſtended with Humors, and the Lymphatics every where throughout both Tunics, no leſs viſibly burden'd with moiſture, and upon a diligent obſerve of their track, were found to aſcend the *Oeſophagus*, and to perforate the great Glanduls, and thence to the Tonſils, the Ranine, and other Glanduls of the Mouth.

§. 12. Before I detected the Expatiation of theſe Lymphatick Channels, could not out of any Author ſupply my ſelf with the Reaſon, why upon the aſſuming of any ungrateful Medicine, Purgative or Alterative, after a ſmall interval, the Mouth doth ſalivate a thin pellucid *Serum*; which from the præmiſed Diſcourſe ſeems very evident: For upon the Combat between the Diſſolvent Liquor (or that which is improperly called the Ferment) and the Volatil Particles of the Medicine, happens a Turgency, which

which by continuation being likewiſe Impreſſed upon the Lymphaticks of the Tunics of the *Ventricle*, and *Oeſophagus*, muſt neceſſarily occaſion an overflowing at the Termination of the *Ductus Salivales*, both of thoſe under the Tongue, and the other on the ſides of the Gums.

§. 13. By the way, I muſt make one obſerve, how unſucceſsful Authors have been, in Impoſing the name of *Ferment* upon the *Acid juice* of the Stomack, and deſcribing its Source, or Original. The word *Ferment*, (as you may read more at large, in the firſt part of my Treatiſe, *De Febribus*, *Cap.* V.) is Univerſally taken to be that, which Clarifies and Exalts any compound Liquor, that's newly made by Decoction, Infuſion, Expreſſion, or otherwiſe, to a greater Perfection, by means of a Simpering (for *Fermentum* takes its Derivation *a Fremendo*, and not *Fervendo*) or a ſmall Ebullition, whereby the Liquor is Subtiliated or Attenuated, and the Heterogeneous bodies ſeparated into a Froth and Lees. This Signification

can in no manner be applied to the foreſaid *Acid juice*, performing only the Office of Diſſolving the Victuals received in the Stomack, and Coæquating it into a Cream, or *Chyle*; a word Originated from χυειν to Diſſolve: Wherefore there being only a Diſſolution of what's Ingeſted, or a Production of *Chyle* attained by means of this *Diſſolvent Acid*, and no Depuration or Exaltation; it doth more properly require the name of a *Diſſolvent Liquor*, than of a *Ferment*, and conſequently there is no Fermentation in the Stomach, but only a *Diſſolution*, and *Coæquation*; whence may be remarqued, how Truth is oft over-ruled by an impetuous Current of Opiniaters.

§. 14. The ſource whence this *Acid juice* ſhould ſtream, was for a long time aſſerted the Spleen, effuſing through the *Vas breve*, into the Stomack, which the Curioſity of Anatomiſts obſerving not to be Pervious at its Termination, concluded there muſt be ſome other paſſage, through which the ſaid Juice was con-

conveighed; but none durst præsume to assign it, until *Sylvius*, the late Physick-Professor of *Leyden*, did attempt to prove this *Acid juice* to be engendred in the *Pancreas*, and therefore named it *Succus Pancreaticus*, whence through the *Ductus Virsungianus* was by Regurgitation forced up into the Stomack. This Conception of *Succus Pancreaticus* hath so fondly been Nursed by him, that in his *Idea nova Prax. Medic.* he doth Impeach it, to be the Productor of most Diseases. Much less than a Demonstration, for scarce a probability of this *Acid Pancreatic Succus* hath been offer'd by him, which so much Disgusted *Monsieur le Vasseur*, a Physician Regent of the Faculty of *Paris*, that he undertook to Demolish that Principle in a small tract written in *Latine*, wherein he doth fiercely Impugnate his Triumvirate of Morbifick Causes, (as he stiles it in his own *Ideom*) though without obtaining any Advantage on his Adversary, the one being no more Auspicious in Refelling the *Acid Pancreatic juice*, than the other in asserting it.

§. 15. In

§. 15. In the firſt place, I find no Difficulty in maintaining, that the *Succus Pancreaticus* is at no time *Secundum Naturam* propelled into the Stomack; for the *Grand Channel*, which is the *Ductus Virſungianus*, terminating near the Confines of the *Duodenum*, and the *Ilion*, and Diſburdening the ſuperfluous Juice into it, is naturally according to the *Periſtaltick* motion, being performed by the Contraction of the Circular Fibres, expelled and carried downwards; and if at any time it is forced into the Stomack, that muſt needs happen by means of the Inverſion of the Periſtaltic motion (namely, the Circular Fibres contracting from below upwards) which undoubtedly is Convulſive, being occaſioned through a Stimulation of the ſaid Juice, Vitiated or Obſtructed, and is abſolutely *Contra Naturam*. But if according to the Tenour of this Diſcourſe, the *Pancreatic Juice* is Regurgitated into the Stomack; is ſo far from Pleaſing or Delighting it, through that amicable Acour, that's Fictitiouſly attributed to it, that it occaſions a maukiſh Nau-

Nauseousness and Salivation, which *Re vera* are effects of a sweetish thick moistening Water, contrary to what flows from the Causality of an Acid Humour; and nothing is observed, to have a greater share, in dissolving the Tone of the Stomack, and contributing Matter to those Slimy Ropy Crudities, plaistered to the sides of the Stomack, than this Incrassated *Pancreatic juice.* So that it must be believed, that this kind of Fallacious Doctrine is by those, that for their seeming parts are placed in the School Chairs, violently Imposed upon their Scholars, who Imbibing this in their Infant Studies, like Principles of Religion, æsteem it a great Crime, ever to doubt of what their Masters infused into them.

Quo semel est imbuta recens servabit odorem,
Testa diu, &c.

§. 16. In its natural Qualification, I am assured, the *Pancreatic juice* partakes of no Acidity, proof thereof shall be offered you below. The

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Pancreas to me, ſeems to be the Sinck of the Lymphatick Veſſels, whither they Poſt the ſuperfluous Lymph, that hath done its Task, to be Evacuated as an Excrement. But here the Wiſdom of Nature is very remarkable, in Inſerting the *Ductus Pancreaticus*, or *Virſungianus* into the *Duodenum*, neighbouring ſo near to the *Ductus Cholidochus*; the one namely the *Cholidochus*, ſerving the Gall Bladder, (*Cyſtis bilis*) as a Conduit to Diſgourge the overflowing Choler into the Guts, which otherwiſe through its extream Amaritude, and Lixivious corroſive Salt, being rendered ſo Superlatively ſharp and detergent, would offer violence to the moſtſenſible ſmall Guts, and ſoon gnaw off its Internal Tunic, were it not that meeting with this Sweetiſh, Thick, Moiſtening Water, Extilling from the *Ductus Pancreaticus*, it was ſoon allayed, and qualified with its Lenitive and Dulcifying Lentour. A further uſe Nature hath Deſtined it to, is to Moiſten, and render the Internal Tunic of the Guts Glib and Slippery, for to Promote, and Facilitate the deſcent of Excrements, being

ing moreover the material Cause of that *Pituita*, or Fleam, which is ever found in the small Guts, in the state of Health. Neither do I give the least Credit to those Capricious Opinions, the fore-named *Sylvius* hath Superstructed upon so Erroneous a Fundamental, as this *Acid Pancreatic juice, viz.*

1. That there daily happens a mild Effervescency between the *Bilis* and that Juice, which I am confident a Healthful Person is altogether Insensible of, unless Indulging his Apetite in a large Rouse of Strong Liquor.

2. That through a Vitiate Acidity of this Juice, are occasioned *Dysenteries*, Gripes, Vomitings, and what not; read *Chap.* V. *Lib. Præcitat.*

3. That all Diseases depend on the Præternatural disposition of his *Triumviral Humour*: To wit, Fleam, Choler, and this *Pancreatic juice*; but for all this, not one syllable of Proof, rather introducing a Thousand Absurdities on the Neck of another.

§. 17. I am now Arrived, where I am

am to Illuſtrate to you, the *Pancreatic juice* is ſo far remote from being *Acid*, that it's perfectly ſweet. It's a Conceſſion granted by all, That Moiſture is more apt to turn *Acid* in an Extinct Body, than Living; as appears in *Veal*, which being kept too long, expires an acid ſteam. If ſo, then,

1. The *Pancreatic juice*, obtaining an Acidity in a Living Body, muſt neceſſarily aſſume a greater Acidity in a Body Expired; which is obſerved contrary, for the Juice that is expreſſed out of the *Pancreas* of a killed Calf, hath a clammy ſweet taſte, and certainly is endued with a far ſweeter ſavour, whilſt it contains a proportion of Volatil Salt within the Channels of a Living Body.

2. The *Pancreas* it ſelf Raw or Boyl'd, pleaſes the Palate with a ſweet taſte, beyond any other ſort of Fleſh, which qualification can not be in a Body that engenders an Acid Juice, or daily is Irrigated with it. *Propter quod unumquodque tale eſt, illud magis tale eſt.*

3. *Lymphatick* Veſſels about the Stomack, and thoſe of the *Pancreas*, both

both Deriving from the Spleen, and having a Communication and Commerce in the ſame Contents, namely Juices or Lymphs, It is not to be doubted, but both Juices of the Stomachick and the Pancreatick Lymphæducts, participate of the ſame Nature, and Taſte, which being deprehended ſweet in the Stomack Lymphæducts, can be no other in the Pancreatick. Medicines that Create ſome Labour to the Stomack, and move a Turgency in the Lymphatics of the Stomack, occaſion an overflowing of the *Ductus Salivales*, or a Salivation of that very Lymph, or Juice, that was floating about the Ventricle, which is commonly pronounced by all, to have a Sweetiſh or *Subdulce* taſte in the Mouth, and doubleſs, that of the *Pancreas* is not different. The manner *how* is expreſſed before.

4. An Argument may be Deduced *a cauſa*; The Lymph of the Stomachick and Pancreatick Veſſels is Repleniſht, and well Saturated with Volatil Salt, whoſe Nature is Experienced, to Expel and Extinguiſh all Acidity, and ſo conſequently the foreſaid

ſaid Lymph muſt prove ſweet, and in no wiſe Acid.

§. 18. The Lymphatick Veſſels being in great numbers directed from the Spleen to the Stomack, to Tranſport thither a proportion of Lymph, that in the Percolation of the Blood, was attracted and aſſuged into the ſaid Lymphatick Veſſels, being thorowly Saturated with Volatil Salt, tranſported through the Pores of the Stomachick Nerves, and Cœliac Arteries, is Effuſed into the Stomack at ſuch times when it hath received Victuals to Digeſt; for thereupon the Arterial Blood, and Vital Spirits are moved and attracted, and a heat Excited, whereby the Lymph being Attenuated, rendered Turgid and the Veſſels Tumefied, is forced into the Stomack in that quantity, as doth ſufficiently Relax the ſaid Lymphæducts. This Lymph by means of the ſaid Volatil Salt, is ſo Subtil, Penetrating, Attenuating, and Rarefying, that Uniting with the Volatil Particles of the Liquor ingeſted, and that which by Maſtication of the Victuals lies

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Perfused and Dissolved, doth soon disunite and dissolve the *Vinculum* of the solid Victuals, and being thorowly mixed with the Liquid, is speedily reduced into a Cream or Chyle. Whilst this Attenuation and Solution is performing, there is a Turgency occasioned in the Capacity of the Stomack, which streightning the Arteries, that Amplexe the Stomack, do through Renix duplicate their Pulsation in Fræquency and fortitude, (as appears upon feeling the Pulse of the Carp after Dinner or Supper.) whereby the Heat is much intended, and Copious Effumations of *Vital Spirits* or *Arterial Volatil Salt*, immitted into the said Capacity, which do most vigorously assist the Dissolution and Concoction of the Stomack.

§. 19. That the Concoctive Faculty is most Active, and Potent in the Fund, or bottom of the Stomack, hath been hitherto the blind Opinion of most Anatomists, upon Surmisal, that the *Acid Ferment*, which bears a great part in the Concoction, through its Gravity and Præcip tative quality,

is chiefly floating about the lower Region of the *Ventricle*: But if we ſuppoſe, the Digeſtive Operation to be performed principally, by virtue of the *Volatil Salt* contained in the Pores of the Lymph, being of a Subliming and Aſcending Nature; the Stomack by reaſon of thoſe greater Nerves of the Sixth pair, and Fibres of the greateſt ſtrength, Circumveſting the upper part of the Stomach to be moſt Robuſt, and the Heat and Diſſolvent ſteems to be Reflected, Collected, and Augmented there; it muſt be confeſſed, that the Digeſtive Faculty is moſt Energic about the upper Region of the *Ventricle*. The next Particular in order to be Explain'd, is, when and how the Juice that is Concocted, is ſeparated from that, which is not yet perfectly digeſted, and afterwards Tranſmitted through the *Pylorus*, or Inferior Orifice of the Stomack, into the ſmall Guts. That the whole content of Victuals and Drink is not ſo long retain'd in the Stomack, until the entire Maſs be totally Digeſted, is Experinced by all, that obſerve their Stomacks after Meals,

Meals, to grow gradually Lighter and leſs diſtended, and their Appetites likewiſe to return Gradually, and ſo conſequently the upper part of the Chyle being firſt Concocted, and ſwiming a top like a Cream, is firſt præpared, and ready to be Effuſed thence in this manner: The *Chyle* being thorowly perfuſed with a great proportion of *Volatil Salt*, is ſo Rarefied and Tumid, that it now excceds its bounds, and by aſſiſtance of that Aculeous quality of the foreſaid Salin Particles, ſtimulates the Oblique Fibres to Expulſion, and ſtill as in the ſame manner the Stomack is gradually diſburdened, ſo the Fibres gradually Contract and Corrugate the Tunics into a ſmaller Comprehenſion, until the whole be Tranſmitted, and the Stomack reduced to a ſcarce greater Circumſcription than a Fiſt. Several particulars here are of Remarque.

The firſt, That the Finer and moſt Coæquate matter is Extermined firſt, and that which is ſomewhat of a groſſer Pulment next, until at laſt the courſeſt and Fæculent part ſucceeds to be wrought upon, which being Tough,

Tenacious and Glutinous, requires an *Acid Diſſolvent*, by whoſe force, together with the Continuation of the heat, Animal and Vital Spirits, or Vivid *Volatil Salt* fuming out through the Pores of the Nerves and Arteries, the matter is more potently Incided, Comminuted and Diſſolved, and the ſaid *Acid Diſſolvent*, or *Mock-Ferment*, obtaining a Pontique or Amicable aſtringent Acidity, is qualified thereby, to præcipitate the groſs remainder of the *Chyle* into the *Duodenum*, and afterwards to fortifie, and Corroborate the diſtended and defatigated Fibres of the Stomack by a gentle Aſtriction.

The Second, That the *Ventricle* being full, the *Pylorus* or lower Orifice is Erected high, to prævent the too ſudden Expulſion of the *Chyle*, and therefore no part but what is uppermoſt, and rendred Turgid, by being throughly Imbued with *Volatil Salt*, can be Tranſmitted; but as the *Chyle* Ebbs lower, ſo the *Pylorus* ſeems likewiſe to Decline downwards by the Contraction of the Fund of the Stomack, to give an eaſier paſſage to the weighty

weighty and droſſy remainder of the fore ſaid *Chyle*, to which, ſhould the *Pylorus* continue Mounted, at ſo great a diſtance from the Inferiour Region of the *Ventricle*, the Trajection or Expulſion would prove extream difficult.

The third is, That the laſt remainder in the Stomack, upon every compleat Concoction, is nothing but Droſs, among ſome Phyſicians called the *Scoria*, which being Commixt with the *Acid Mock-Ferment*, is præcipitated into the *Duodenum*, where by reaſon of the Acrimony of the Commixt *Acid*, vellicates the ſaid Gut, at the Terminations of the *Cholidochus*, and the *Ductus Pancreaticus*, Irritating the former to Diſburden its *Cargo* of Choler, and the latter its Incraſſated Glutinous Lymph, of which three only the Excrements of the Guts do conſiſt, *viz.* From the Droſs or *Scoria* of the Stomack, they Derive their Matter and Conſiſtency, from the Pancreatic Lymph their Clammineſs and Cohæſion, and from the Choler their colour, from the quantity whereof it's more or leſs Yellow,

Red, or Luteous, and from the commixture of all their ſtinck doth Derive.

The fourth Obſerve is this, That whilſt the Body is ſeated in a Healthful ſtate, the ſweet Cream of the *Chyle* not being irritative, paſſes the *Duodenum* and the other ſmall Guts, without being Perturbated, Commixt, or Corrupted with the foreſaid Excrementitious Choler, or Pancreatic Lymph, which ever as I ſaid before, are diſburdened at laſt, ſeparately from the Alimentary Juices.

The fifth Diſcovers an Error of Opinion of ſome of the Learned in Phyſick, who ſtrive to maintain, that it is the Red Dregs of the Blood, is Evacuated through the *Ductus Pancreaticus*, which they name *Gloces Sanguinis*, not being unlike the Dregs of Red-Wine, which partly they ſay conſiſts of thick Melancholy, that hath perform'd its Task, and partly of the Red of the Blood, that was too long Retain'd, and ſomewhat Aduſt. Of this Opinion the Learned Profeſſor *Vander Linden*, of Famous Memory, was the Author, and alſo did (among

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the reſt of his Diſciples) Inſtil it into me many Years paſt, but having only his αὐτοψίαν for it, and upon Anatomical ſearch into ſeveral Subjects, not finding any Red Dreg or Lee, or any thing elſe, except the oft fore-mentioned thick Pancreatick Lymph, have juſtly deſerted that Tenet.

The ſixth puts me in mind of the Præparation, all ſolid Victuals requires, namely of being Maſticated, Ground ſmall and even by the Teeth, and withal Perfuſed with Spittle, which almoſt conſiſting of the ſame Principles and *Volatil Salt*, the *Diſſolvent* Lymph of the Stomack doth, is a ſingular aſſiſtent to the Concoctive part. That the Spittle is ſo prægnant of *Volatil Salt*, is clearly Evinced from it's Diſſolutive virtue, Softening and Diſcuſſing almoſt any Puſtle in leſs time, than any Medicine whatſoever; and ſuppoſing the Spittle to be ſo Turgid of *Volatil Salt*, much more the *Diſſolvent* Lymph of the Stomack.

The ſeventh Annotation is, That during three Fourth parts of the time

of Concoction, the *Diſſolvent Juice* is no wiſe Acid, but on the contrary partakes of an Igneous Alcalized volatil Nature, abounding with Penetrative, Diſſolutive and Pungitive, or Mordicant Effluviums and Steems, as may be obſerved by thoſe, that occaſionally Belching at the mid-time of Concoction, or before, or ſomewhat after, are ſo vehemently Stung, Bitten, and Inflamed in their Throat, and along the *Oeſophagus*, that it is not in the power of *Brandy*, or other *Ardent Spirits*, to imitate thoſe Effects. But the *Volatil Salts* being together with the *Chyle*, paſſed out of the Stomack into the ſmall Guts, the *Diſſolvent* Lymph is left *Acid*, to accompliſh the Digeſtion of the Groſs and Fæculent remainder, which towards the latter part of Digeſtion, or ſome ſix or eight hours after Meals, in ſome quicker, in others ſlower, is upon an Eructation or Belching perceived in the Mouth, not only Sour, but *Acid* with an Adſtriction, not unlike the *Acid* Spirit of *Vitriol*.

§. 21. To thoſe that are knowing in the

the Analytick part of the *Spagyrick Art*, it's very Obvious, that Compound Liquors consist of a *Volatil Salt*, and an *Acid Tartar*, as plainly may be Demonstrated in Wine, whose *Volatil Salt* or *Spirits* being extracted, and dissolved from the Union with the Fixt Particles, through the attraction of the igneous effluviums of the Ambient Air, the *Acid Tartar* doth immediately appear in the taste of the remaining Liquor, which then is called *Vinegar*, or Sour Wine. In the same manner most other Liquors and Decoctions being deserted of their *Volatil Salt*, by Attraction of the Sun-beams or Ambient Air, do likewise immediately turn sour. Spittle though sweet, when it's egested out of the Mouth, grows *Acid*, as soon as its *Volatil Salt* is Exhaled. Upon so perspicuous an Illustration, I cannot imagine you expect further proof, that the *Dissolvent* Lymph of the Stomach is not at all *Acid*, but contrary, as soon as it's effused into the Stomack, it's Subdulce or Sweetish, and continues so until it's Body is Expanded, Pores opened, and it's

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Volatil Salts and *Spirits* Extracted to the Circumference, and then it's grown Igneous Colliquative and Mordicant, and at laſt, the *Volatil Salt* being partly Evaporated, and partly Attracted into the *Vaſa Lactea* (like Wine changing into Vinegar) turns abſolutely *Acid*, Inciding and Aſtrictive. Arguments in greater number, and of no leſs Evidence, I could here offer to your Conſideration, but do prætermit them to avoid the Suſpition, of judging my Reader ſo Obſtinate an Opiniater, as not to be perfectly Convinced of the truth of the Præmiſes, by what is already propoſed. Neither would I have you conclude, that I have Steer'd beyond my Rhomb, in Expatiating into ſo Ample a Diſcourſe of the firſt *Concoction* or *Chylification*; for the true *Theory* of the Office of the Stomack, and its manner of Operation, is a great Fundamental of the Art of *Medicine*, the Ignorance whereof (God mend it) among Phyſicians, is a great occaſion of their too great Correſpondence with the Sexton and Grave-maker. What Principles, or rather *Prænomenon*,

non, an Eminent Physician of the City, had assumed in Informing himself with the manner of Production of the *Scorvey*, and its Causes, I could never apprehend from his Receits; But this is most certain, that a Patient of this Physician, a Person of Quality, and a very near Relation to a Pear of the Realm, for the Benefit of Air, living at *Woodford* in *Essex*, had the strength of walking Abroad, made use of Medicine præscribed by him, but within two dayes Ghosted. Whether the said Medicines, set the Humours a float, or whether our Doctor had been upon the Merry-pin before he Præscribed, was much doubted.

CHAP.

CHAP. VI.

1. *That the Material Cauſe of the* Mouth-Scorvey *is an Acid Lymph of the Stomack. How a Salivation is Continuated; the Cauſe of thoſe Anxieties in a Salivation.* 2. *The Nature and Kinds of* Acids. *The Effects of the* Acid *of* Vinegar, Vitriol, Nitre, Salt Marine, Tartar, Antimony, *and* Sulphur. 3. *That there is a Difference in Nature in* Acids, *and likewiſe in Alcalies between themſelves.*

§. 1. IN Mercurial Salivations, wherein (as hath been hinted before) every Particular doth ſo exactly reſemble the Scorbute, I find the Material Cauſe is the Liquor of the Stomack, and the *Lymph* of the Stomachick Lymphæducts, which like a continuated Stream is forced up; but how this Iſſue of the Mouth is ſupplied, ought to be further inquired into.

Although many of theſe Water Rivulets

vulets from the Brain, and other parts of the Head, do Communicate with those, that are terminative within the Mouth, yet it must be received for a Truth, that the great Source and Spring is about the Stomack, and the Pancreatick Lymphaticks, which latter streaming so Impetuously upwards, are the chief Cause of the Constipation of the Belly, being otherwise greatly promoted, in its natural Quotidian Evacuation by the wonted descent of the *Pancreatick Juice*, Relaxing and Lubricating the passage of the Guts. The Anxiety attending a Salivation, is a Symptom oft very Urgent, and depends on a streightned passage of the Blood, through the Ventricles of the Heart; for being deprived of the greatest part of its *Volatil Salt*, imbiled by the Lymph or *Serum*, which is now too much drained from the Blood, the Pulsifick Faculty for want of the *Volatil Salt*, must necessarily Languish, and the Blood being too dry, and Coagulative, must needs pass the Heart with great difficulty. Neither is this the sole Cause, but being accompanied with

with a ſtoppage of the Salivation, as oft happens, the Salivable Matter doth Regurgitate to the Lymphaticks about the *Hypochondria*, where it doth Duplicate the Anguor, which in ſome I have obſerved ſo extream, that they owed their narrow Eſcape to very Opportune Remedies, and moſt if not all, that have the ill Fate, to be Baniſht the World in a Salivation (which the *Surgeons* and *Apothecaries* of this Town are ſo Unſucceſsful in) have been ſtifled by theſe Angours.

§. 2. The Blood floating through its Chanals, naturally is Indued with a ſweetneſs, but in a Salivation, and the Scorbute, turns *Acid*; the manner how, is the great Secret of this Theory. Præmiſſorily it's requiſite, to propoſe the Nature and Kinds of *Acids*, which are various. The *Acids* of *Vineger*, *Vitriol*, *Nitre*, *Common Salt*, *Tartar*, *Antimony*, *Allom*, *Sulphur*, &c. all obtain a Specifick difference, as is rendred Obvious by their Properties and Efficiency. The *Acid* of *Vineger* is particularly obſerved Potent, in Attracting the *Sulphur* of

of Minerals. The *Acid* of *Vitriol* is Diametrically oppoſite to the *Alcali of Tartar*. *Nitre* by force of it's *Acid*, doth Amortiſe the Volatil Salt of any Mineral; Abſtract it oft from *Mercury*, and the reſult will be a Dulcified *Arcanum Corallinum*, a Medicine ſingularly reputed for a mild Vomitory and Dejectory; upon further repeated Cohobations, the foreſaid *Arcanum* deſerts its Cathartique Faculties, and is limited to a *Diaphoretique*. The like Effects it produces on the furious Body of *Butyrum Antimonii*. The *Acid* of *Salt Marine* is the ſole Diſſolvent of Gold, eſpecially when united with the *Acid* of *Nitre*, and then conſtitute the true *Aqua Regia*, which is in nothing different from the common *Aqua Regis*, abſtracted from *Vitriol*, *Nitre*, and *Sal Armoniac*, except that the former far exceeds the latter in Purity and Force: For though the common *Aq. Regia* be made out of *Aq. Fort.* Cohobated upon *Sal Armoniac*, it's moſt certain, that the ſaid *Aq. Fort.* is nothing but the Spirit of *Nitre*, that of *Vitriol* being too ponderous to aſcend through

through the ſame degree of Heat; and the *Sal Armoniac*, from which this is propel'd, contributes nothing, but its *Acid* Spirit of *Salt*, which conſtitutes the Body of the ſaid *Sal Armoniac*; for the Volatil Salts of Urine and Soot, which defer to it a Specifique difference from other Salts, being *Alcalies*, are Amortiſed, and Extinguiſht by the *Acid* of *Nitre*, and conſequently in their Extinction, muſt neceſſarily by Reaction obtuſe, and hebetate the *Acid* of *Salt*, and *Nitre*, whence it appears this ſort of *Aq. Reg.* muſt yield to the other, in point of Efficacy and Virtue. In the Thirſts of *Hydropicks*, the ſaid *Acid* Spirit of *Salt*, through it's penetrative Faculty doth excel all others, in Allaying and Conquering the Exiccative Quality of thoſe fiery Salts, that are daily Meteoriſed to the upper Orifice, or ſupream Region of the Stomack, and there occaſion thoſe inſatiable Droughts. There is a Subject of Admiration in the *Acid Spirit of Tartar*, conſidering there is nothing ſo Remote, or Abſtruſe in the Body of Man, but it will find out and Inſinu-

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ate into; but what is more than this, contrary to the Nature of most *Acids* (whose Operation is universally by Urine) it's a great *Diaphoretique*, and provokes Sweat potently. *Antimony*, if like *Vitriol* it may be called the third part of an *Apothecaries* Shop, it's *Acid* Spirit merits the chief place in it; for beyond all Peradventure, he that's unacquainted with this great *Acid*, is by some thought Ignorant, how to Cure a Malignant Feaver *è Fundamento*. The *Acid Spirit of Sulphur*, though usually termed the same with Spirit of *Vitriol*, hath that difference, that it contains a fixt Principle, whence it derives a power, to fix the most Fugitive of Minerals, which is denied to Spirit of *Vitriol*.

§. 3. But to Illustrate this more plain, that some *Acids* are very different, and in a manner almost as contrary to each other, as an *Alcaly* is to them; only make trial upon the *Magistery* of *Coral* or *Pearl*, which is commonly præpared, by their Dissolution in Spirit of *Vinegar*, (whereupon happens an Ebullition) Exhala-

tion of the ſaid Spirit, and Edulcoration; upon this *Magiſtery* affuſe ſome different *Acid*, as Spirit of *Salt*, *Sulphur*, or any other, there will arrive another Ebullition, as ſmart, if not ſmarter than the former, but of a ſhorter continuance, which Evinces, there is a great Contrariety; as appears further in this particular, that one *Acid* will præcipitate, what's contained by Diſſolution in the other. There is no leſs Contrariety between *Alcalies*, for *Sulphur* diſſolved by a continuated Ebullition in the Capitel or Lixive of *Calx viv.* is præcipitated by Urine. Any of the *Aromatique* Oyls, be it of Cinamon, Cloves, *&c.* is Incraſſated, and Coagulated into a thick Balſam, by affuſing Spirit of *Sal Armoniac* to it, which is an infallible Character of Contrariety between them, and (by the way) is lookt upon as a great Secret, whereby a Balſam may be made without the Mixture of Wax, or Oyl of *Nutmegs*. Beſides theſe, it is to be Remarked, *Acids* are either Natural, or Corrupt. The former bears the part of a Conſtitutive Principle in all Natural

tural Bodies, though being prædominated by an *Alcaly*, or ballanced to a temperament *ad Juſtitiam*, is not expoſed to be diſcovered by ſenſe; but by a Chymical diſſolution into their Elements, the *Acid* is ever diſcovered to Univerſal view to be one. All Salts, (not being Alcalious) though the *Acid* lies dormant and hidden in them, by the force of Fire through a Retort, do deprome their *Acid*; all ſorts of Wood do exert the like *Acid*, being forced in the ſame manner through a Retort; which *Acid* before this *Analyſis*, could not be deprehended in them by Taſte or Scent. A ſtrict Proof will not be required, I imagine, that there are ſome *Acids*, that are corrupt; Apples and Pears when they begin to Rot, ſmell and taſte ſour, and ſo do Fleſh-meats, and moſt Artificial compound Liquids corrupting, as Beer, Syrups, Meathe, Broaths, and moſt ſorts of Decoctions, alſo natural Compound Liquids, as Milk, Wine, *&c.* None of theſe *Acids*, but by any Naturaliſt will be termed Corrupt. But what is more, Bodies that are primarily *Acid*, are ſubject to be Converted into a corrupt *Acid*,

as appears in the Juice of Limons, Oranges, Pomgranates, and others, which being expoſed to the Rays of the Sun, do decline into a corrupt *Acid*, far remote from their Natural.

The variety of *Acids* beyond this laſt inſerted diſtinction, is great: *Acids* are either Pontique and Styptique, as ſome deep red Wines, *Vitriol*, and many Vitriolate Præparations; Acerbous, as immature Pears, Apples, Plumbs, *&c.* Auſtere, as ſome ſort of Wines, that taſte ſour and harſh. There is alſo an *Acre-Acidum*; a ſharp *Acid*, without any Stypticity or Auſterity, as the *Acid* of Spirit of *Salt Marine*. In Mucilages is alſo a particular *Acid* to be obſerved, which may be termed *Acidum Mucilaginoſum*. Some uſe may be made of deſcribing *Acids*, by names derived from *Acids* in Minerals, whereunto the *Acids* in the Body bear a proportion and reſemblance, as in ſome it's remarkable, they experience a ſour ſtyptique taſte upon their Tongues, not without ſome likeneſs to Copper, which may not improperly be called a *Nitriolat Acid*. In the ſame manner other *Acids* may

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be termed nitrous, aluminous, *&c.* By the way I am to advertiſe, that I am not ignorant, that Natural Philoſophers diſtinguiſh Taſtes into acid, ſharp, auſtere, *&c.* which here I do reſume as kinds of *Acids*; referring the truth thereof to the arbitrement of any ones ſenſe; but thoſe Naturaliſts following the umbrage of reaſon more than Notion, abſtracted from *Experimental Philoſophy*, no wonder they failed in this particular.

I muſt here divert my Reader from opinioning me to have deſerted my line, in bringing on the board the nature and diſtinctions of *Acids*; which I affirm is no wiſe forreign to this matter; for it is from the præmiſſes I am to deduce and illuſtrate, there is in the humors of the Body diſcoverable a natural *Acid*; that they are ſubject to be converted into corrupt *Acids*; and the manner how.

If to all Phyſical Bodies there concurs an *Acid*, as a Conſtitutive Principle, whereby the *Alcali* is bound and coagulated into a body, it cannot be denied to the humors, which for further proof being mixed with Brick

duſt, the Maſs formed into Cakes, dried, and forced through a Retort, you ſhall find in the Recipient an *Acid* ſpirit of great Energy and Vertue in *Hydropick* Maladies. This is the natural *Acid* is Latent in Humors, and not to be diſcerned by Senſe, becauſe it is prædominated by the *Volatil Salt* being of an *Alcalious* Nature. To continue the ὅτι, in the next place it's to be declared, the Humours, and particularly the *Chyme* is ſuſceptible of a putrid *Acid*. The vulgar *Barber-Surgeons* and Bleeders, give their Teſtimony, that the Blood by *Phlebotomy* extracted out of ſeveral diſeaſed Bodies, to their taſte hath appeared Aluminous, Auſtere, and in ſome Scorbutiques very ſenſibly *Acid* or Sour; their Breath hath alſo expired a ſour ſteam, and thoſe *Tormina* or taring pains of the Guts, which Scorbuticks are ſo much expoſed to, are ſometimes cauſed by a *Pituita Acida*, or Acid Phleam, terebrating the Tunics of the Guts. For brevity I do prætermit many other Arguments, inferring the Blood in Scorbuticks to be *Acid*, as the evident Derivation of Sym-

Symptoms from an *Acid*, will in the process of this Discourse more amply Demonstrate; only in conclusion of this Paragraph, I do say, That if it be granted, that Milk doth oft turn sour and curdle in the Breast, it's as probable the Blood in the Vessels doth turn sour and Coagulous, they being in constitutive principles, but little different from one another. I cannot very well avoid animadverting on an Objection, that *Prima fronte* seems to carry some force, *viz.* That if the Blood be supposed *Acid* in the *Scorvey*, then all *Acid* Medicines must render the Blood more *Acid*, and the Disease worse, as is implied by that trite Theorem in Physick, *Similia similibus conservantur, & contraria contrariis curantur*; and consequently *Alcalies* should be furnished with a virtue, to subdue the said *Acid*, being their contrary. The præmitted dissertation contains as to this a very satisfactory Answer, wherein it is very perspicuously Exhibited, that many *Acids* are *è Diametro* contrary to one another, as according to the rule of contraries (*Contraria sese mutuo pel-*

lunt ex eodem ſubjecto) appears by the ſeveral Ebullitions (a ſign of contrariety of two different *Acids*) in the above-mentioned Præparation of Magiſtery of *Pearl* or *Coral*: Wherefore moſt *Acids*, eſpecially Spirit of *Salt Marine*, Juice of Sorrel, Limons, Citrons, *&c.* are ſo deſervedly extoll'd in ſome Scorbutick Diſtempers, and ſeconded with good ſucceſs; though I muſt confeſs, they are moſt properly and chiefly uſeful in a *Lixivial Scorvey*.

The field of *Acids* is large; Therefore which of them this Scorbutick *Acid* doth moſt imitate, will be expedient to propoſe next. Upon pervolving thoſe Authors, that have treated on this Diſtemper, I find them ſo cloſely adhæring to *Similies* abſtracted from Wine and Vineger, that I judge it a matter more facil, to draw a Drunkard out of a Tavern, than them from their courſe notions upon *Wine* and *Vinegar*. He that reſembled Scorbutick Blood to Wine, that's turn'd *Ropy*, hugs himſelf in that ſubtle Invention, and in the ample recompence of being applauded by the young *ſucking Phyſicians*. This word *Ropy* is oft intended for ſtringy, or ſtreaky,

ky, there being long ſtreaks ſeparated from the whole fluid Body, and floating in the thin liquor, as appears in Milk that's turned ſour and grown *Roapy*: But ſuch I could never yet obſerve in Scorbutick Blood, though I have examined a great number of Porringers. Blood that's tenacious, obductible and glutinous (which thence may be termed *pendulous*) I do very frequently meet with among Scorbuticks, but that's no other, then what flows in the Veins of moſt Cachecticks. The Cauſe aſſign'd (by my Author) of the Roapineſs of the one and the other, is an over-fretting; wherefore, he ſaith, the *Scorvey* is oft ſubſequent to a continual Fever: And why not then to all Fevers, there being as much an over-fretting in the one as in the other? Whence this is the conſequence, that all *Scorveys* are produced by Fevers, or Over-frettings; And what over-fretting of the Blood are Seamen and others ſubject to, that derive the Seminary of their *Scorvey* from the Salin Air of the Sea? I could never yet underſtand any. He proceeds, and would perſwade you to believe, that through

through this over-fretting, the *Sulphur* and Salts are ſeparated from the Maſs of the Blood, and being abandon'd to the Urine, render it Red like unto Blood; as if the Urin of all Scorbuticks were of that tincture. If this prætended Roapineſs may be attributed to the Blood, it muſt be that, which is contained in the Veſſels of the *Meſentery*, whence groſs Humors are purged away in great Streaks and Ropes: But that it ſhould be Streaky within the Veſſels, becauſe it appears ſo, when by Carthartick Phyſick its purged thence, *Non valet ratio.* For a farther Explanation upon Ropineſs, I refer to Chapter 11.

Others affirm, the Blood in the *Scorvey* to turn Acid like Vinegar. By the way, you muſt not apprehend the Blood to decline to the ſame Degree of Acidity Vinegar is of; for that muſt neceſſarily Infer a Total extinction of the Dogmatick Innate and Influent heat; but that it only recedes from its Dulcor and Sweetneſs, to a Crude Auſterity and ſome ſmall Acidity. It will not be out of purpoſe, to Examine how an Acidity is introduced into

into Wine, and conſequently becometh Vinegar; whence probably may be Extracted the Cauſe of Acidity in Scorbutic Blood. Peripatetique Philoſophy aſſerts Wine to change into Vinegar by Putrefaction and Corruption. Putrefaction(being by ſome accounted only a tendency to Corruption) is Defined by the Stagirite a Corruption of the proper Natural heat in each moiſt Body, occaſioned by a forreign Heat that's without. This applied to the Generation of Vinegar, infers that Sourneſs to proceed from an Extinction of the Natural heat or Spirit of Wine, by an External Heat. I cannot but admire here, that a Liquid Body ſhould iſſue from a præceding Liquor by Putrefaction, and that without any *Fœtor* or ſtinck, which is aſſerted to be an inſeparable Accident; and what is more, that a Body ſhould be engendred by Putrefaction, which of all others is the greateſt præſerver from Putrefaction; for ſuch Vinegar is eſteemed to be. Wherefore it's more Rational, and Conſentaneous to Experiment, that Wine conſiſts of *fixt Salt*, *Sulphur*,

Volatil

Volatil Salt, and *Lymph*, or in the *Spagyrick* phraſe, *Mercurius*. The Fixt Salt is the Acid *Tartar*; the *Volatil* (Incorporated with the *Sulphur*) being diſſolved into a ſmall proportion of Lymph is the Spirit, which as long as it continues United with the Fixt Salt, doth obtuſe the Acidity, and renders the whole Mixture ſweet, as the Wine appears to the Palate, but being ſeparated from it (as hath been hinted before) the Acid Tartar diſſolved in the greater proportion of the Lymph, in effect is the Vinegar; ſo the way to make Vinegar, is to Abſtract the Spirits or *Volatil Salt* from the Wine, by ſuffering it to Exhale, or by Expoſing it to the Sun, or Heat of a Fire, which Attract the foreſaid *Volatil Salt*, or by adding a ſmall Meaſure of ſharp Vinegar to a greater of Wine, which with an united force of the *Fixt Salt*, do ſoon Extinguiſh and Expel the *Volatil*, and then the prævailing remainder is Converted into Vinegar. The Method chiefly in uſe among the Vinegar-makers in *France* is this; They take two Barrels of a long ſhape, which there they call *Flutes*, and being

ing well cleanſed, they put into each of them Four, Six, or Eight Quarts (according to the bigneſs of the Veſſel) of the ſtrongeſt and ſharpeſt Vinegar, being made Boyling hot, and thereupon ſtop the Bung-hole very cloſe, then they Roul and Move them to and fro for Six Hours together, until the Vinegar is grown cold, after this they run it out again, until there is not a Drop left, and then lodge the Barrels in a warm place, and fix them ſo, that they may lie faſt and not ſtir; upon this they make two Holes (which they call the Eyes) in each of them with a Piercer, about a foot from the bottom, and pour into thoſe Holes through a Funnel, ſome Eight or Ten Quarts of the beſt Vinegar, and a Week after they pour Two Quarts of Decayed Wine to it through the ſame Holes, to make Vinegar of, a Week after that they put as much more to it, and ſo every Week they add as much more to it, until the Barrels are a little more than half full, and then they encreaſe them every Four dayes, until they are quite fill'd, which they draw off to two Thirds, for

for to Sell; and afterwards fill up their Flutes again gradually.

From whence I infer all Wines to be actually Vinegar, and Spirits, that is to be Phyſical Compounds, containing actually the Principles of Acidity in them, and *Volatil Salt* of an Alcalious Nature; and on the other hand I deny, That in *Vinegar* the Acidity is Introduced or wrought into it *per ſe*, by the Efficiency of the Sun or other Extraneous heat, but only *per accidens*, by ſeparating the *Volatil* from the *Fixt Salt*, or Reducing it into it's Principles.

In the Generation of Vinegar there are ſeveral alterations obſervable, being Aſcents and Degrees, tending to that extream Acidity Vinegar is of: In the firſt place, Wine changes to a Muddy and Turbid Countenance, looſing that Diaphaneity and æquality of Subſtance and Colour it had, becauſe the Conſtitutive Particles have changed their Poſition and Situation; for in Wine that's declining towards the Eger, the *Volatil Salt*, which before had æqually expanded the Fixt Acid Salt, Exhaling or Receding, the

the ſaid Fixt Salt doth ſomewhat Coagulate, and Unites nearer in its Particles, whereby this Obſcurity and Turbation is Introduced. In this degree the Wine hath ſomething changed its Taſte, and Drinks flatter, but no kind of Sourneſs doth then appear; for though the Acid Salt ſeems to get ground upon the *Volatil*, it's not yet arrived to any mark of Acidity, becauſe the aforeſaid Acid is Commixt with a ſlimy dull Tartar, which Obtuſes its Sourneſs, and is the principle Cauſe of the Obſcurity and Turbidneſs in the Wine. It is not long after, that a little Sourneſs may be diſcovered by the Taſte, and Turbidneſs obſerved to diminiſh; for as the Wine gains in Sourneſs, ſo it loſeth in Obſcurity, the Acid freeing it ſelf from the ſlimy Tartar, præcipitates it to the bottom, or by Inciding and Attenuating it, diſſolves it into Lymph, whereby it's Clarified and grows Pellucid, and conſequently as it grows Soure ſo it grows Clearer, until it becomes perfect Vinegar, and then it's likewiſe grown perfectly Diaphanous.

Now

Now you may eaſily imagine, it is not my Scope, only to offer my Reader the Theory of Vinegar, or to Inform him, how to Arrive to be a *Vinegar-maker*, but by a way of Comparative (for Notions in Phyſick frequently ſpring from that Method) to the Blood, to Illuſtrate its manner of receſs from it's Natural towards a Scorbutick Acidity. Wherefore firſt you are to apprehend, the Blood in its Native Conſtitution is ſweet, or of the Qualification of a *Pingue Dulce*, it's nitorous or ſhining, of an æqual Temperament and Mixture, imagine *ad Juſtitiam*, and not Perturbated or Coagulated, but Fluid and Smooth; by reaſon of its *Volatil Salt* is ſo Penetrative, and Inſinuating (though when it's Tapt out by *Phlebotomy*, appears thick) that *Quick-ſilver* the moſt Inſinuating of all Minerals is Groſs to it; for it's Obſervable, the Blood doth daily pierce to the moſt Intime and Remote Pores of the moſt compact parts of the Body, *viz. Bones*, *Membranes*, &c. Laſtly, The Blood, though conſiſting of a Fat and Unctuous ſubſtance, the Taſte of it is Smart and Piercing.

It

It is in all these and more particulars the Blood in *Scorbuticks* doth undergo an Alteration. I shall begin with a short Comment upon its Acidity, unto which it gradually recedes from its Natural sweetness; but the kinds of Acids being many, it's requisite to assign, which of them this Distemper is grounded on.

The *Volatil Salt* of the *Blood* suffering any impair by depravation, diminution, or extinction, the natural *Acidity* of the said *Nutritive Liquor*, doth acquire a prædominance, or sometimes an absolute power, in the same manner as was asserted above, touching the change of Wine into Vinegar. If obtaining a prævalence, renders the state of health neutral, but if by conquest it hath got an absolute power, denotes the temperature and mixture of the Mass of Blood dissolved, which onely happeneth in those, that die of old age. But supposing, that upon the affection of the *Volatil Salt*, the natural *Acid* lieth exposed to injuries (read *Chap.* 11.) which during the intire *Vinculum* of both, it was defended from; then the forefaid *Acid* degene-

rates from its natural into a vitiated, putrid, or corrupt *Acid*, which *ipſo facto* doth conſtitute a diſeaſe. This præmiſed, I aſſert, that a recent, or confirmed *Scorvey* is the adæquate effect of a putrid *Acid*; The others, namely auſtere, or pontique, are cauſes onely of melancholy, hypochondriac and meſaraic diſtempers. Proof hereof may very well be made by arguments, deſumed from the effects, that iſſue from the cauſality of a putrid *Acid*. Firſt we will examine the blood of *Scorbuticks*, which upon view I have frequently remarqued, to be of a dull countenance, and in no wiſe nitorous, of colour livid, or ſometimes cineritious, or in others reſembling the whites of Eggs, interſperſed with opaque ſtreaks: in point of conſiſtency thick, cohærent, conglobated and tenacious, being alſo overflown with a turbid ſeroſity, of guſt palpably acid, and here and there a nitrous Acid, both in ſcent and taſte, and at no time gratefully acid; in initiated Scorbuticks the ſeroſity diſcovers a crude, auſtere, or ſometimes pontique *Acid*. The evidence here

is

is ſtrong, being demonſtrable to one of the ſureſt Senſes, *viz.* the Taſte, and that deſumed from the *Serum*; which by reaſon of the Salts and Tincture it extracts from the humors, affords a moſt prægnant diſcovery of the conſtitution and complexion of the Blood. But we ſhall inſiſt no longer on that ſenſe, but convert our diſcourſe to experiment; inſtil a few drops of Spirits conſiſting of a *Volatil Salt* (*viz.* *Spirit* of *Sal Armoniac*, *Cornu Cervi*, Soot, *&c.*) into a ſmall proportion of Blood; their effect will render it fluid, nitorous, ſerene, of a moſt pleaſing red, and reſcue it from a diſſolution of the Humors: But on the other hand, *Acid* drops, *viz.* of *Nitre*, *Salt*, *&c.* occaſion immediately a Coagulation of the ſaid Humors, and a ſeparation of their *ſerum*, leaving thoſe in a turbid commixture, dull, opaque, cineritious, and of an ill whitiſh fleam colour. Whence we may rationally præſume, Scorbutick Blood ſo exactly reſembling what is impreſſed on any other Blood by theſe *Acids Spirits*, to derive its vitiated conſtitution from an *Acid*,

which muſt neceſſarily be a putrid one, as ſhall be explained hereafter. In the next place, let's make Inſpection into the Characters of Scorbutick Urin, which for conſiſtency is uncertain, moſt times muddy, turbid and thick, ſometimes thin and opaque; for colour pale and whitiſh, though in ſome few of a raw bloody colour, like water, where raw fleſh hath been waſht in; for contents various, ſometimes a copious ſediment of an Aſh colour, with a ſcum ſwimming on the ſurface like Tallow, other times a ſmall ſediment. By ſcent is detected a particular ſtinck, notlike what's expired from other Urin. The cauſality of theſe qualities in the fore-mentioned Urin doth lie between an Alcalious Lixivial Salt, and an *Acid* Salt. The firſt contributes a muddy deep yellow, and ſometimes a ſaturated red tincture to the Urin, and therefore relating to ſome inveterate *Scorvey*, doth conſequently lodge the faculty of engendring a Scorbutick Urin of a recent Diſtemper in the latter, *viz.* an *Acid* Salt. Moreover, the ſame Experiment of Inſtillation of different drops into

into *Urine*, produces the ſame evidence it did upon the *Blood*. That this *Scorbutick Acid* is putrid, appears by its production and inſeparable adhærence of a ſtink, for which a ſufficient teſtimony may be taken from the breath of *Scorbutics*, the ſteams that evaporate from their Bodies, the ill ſcent of the *Serum* of the *Blood* and *Urine*, which all ſtink abundantly. To make at præſent any further conviction, that a *Putrid Acid* is the internal cauſe of the *Scorvey*, by deriving any more Symptoms from its efficiency, will be ſuperfluous, in regard, that will be ſingularly explained in the particular mention we ſhall make of them. The cauſe of a *Putrid Acid* ſhall be propoſed in *Chap.* 11.

CHAP. VII.

Of the Procatarctic or External Cauſes of the Mouth-Scorvey.

1. *That* Mercury *frequently uſed, proves ordinarily an occaſional cauſe of the* Mouth-Scorvey. 2. *That a* Salin Air *and* Salt Diet *are the principal external Cauſes of the* Scorvey. 3. *Whether a* Salin Air *or* Salt Diet *be the more principal Cauſe.* 4. *How* Salt Meats *cauſe an Acidity in the Blood.* 5. *That the Drink brewed about* London *is brackiſh.* 6. *That* Gluttony *and* Debauchery *are two grand Scorbutique Abettors.* 7. *How the other Non-naturals contribute to the engendring the* Scorvey.

§. 1. A Salivation excited by *Mercurials*, and accompanied with its uſual attendants, is beyond all peradventure a *Mouth-Scorvey*; and for that reaſon *Hartman* and other Chy-

Chymical Authors, affirm *Mercurial Medicines* pernicious, and altogether improper in *Scorbutique Distempers*; and consecutively to this Assertion, I have frequently observed, that such as have been obliged to make use of *Mercurial Remedies* against their *Venereal Maladies*, do ordinarily fall into the *Scorvey*, which sometimes proves more stubborn than the Distemper, which the said Mercurials were intended against; So that we must set down *Mercury*, to be one among the number of occasional Causes of the *Scorvey*.

§. 2. Gross faculent and obstructive Diet, especially if overcharged with Salt, or rendred hard and compact with Smoke, as dried Neats Tongues, Bacon, Sausiges, Red Herrings, Dried Salmon, Hung Beef, *&c.* do not only contribute matter, but obtain also a peculiar faculty of impressing a *Scorbutic Idea* on it. Of the same nature are Melancholic Meats, as Beef, Pork, Geese, Ducks, Salt Fish, and all other Fish, that are bred in standing Waters, as Eels and others; also Pick-

led and Marinaded Fiſh, as Pickled Herrings, Anchovies, *&c.* The next of the *Non-naturals*, that bears a great part in this morbifique production, is a Salin Air, rendred thick and conſtipative by Vapors and Damps, Nitrous Evaporations out of the Earth, filled with putrid ſteams of Sinks, Gutters, Ditches, Muddy and Dirty Streets, and Sulphurous Smokes of Chimneys, ſtagnating and pent up between narrow lanes and corners, and ſeldom ſerenated or purified by the rayes of a clear ſhining Sun, nor frequently ventilated with Eaſterly briezes; and ſuch is the Clime of *London*, where the Air is experienced cloſe, dull, damp, ſalin and muddy, over-ſpread with denſe, dark, ſalin Clouds (attracted out of the Sea) for two third parts, if not three fourths of the year; during which time the wind ſeldom blows Eaſterly, or is favored with a ſmiling Sun.

§. 3. Theſe two are accounted the principal external Cauſes; the former aggreſſing the Body within, the latter without; but to which of theſe the ſole

ſole cauſality may be imputed, hath been controverted between ſome Modern Authors, the one party, whoſe opinion induceth them to believe the Scorbut to make its firſt aſſault on the Blood and Animal Liquor, by entring the external pores, ſtate the Air the chief and original efficient: The other, apprehending the Stomach and its Ferment, to receive the firſt efforts, proclaim Diet the principal Agent. In favor of the former ſentiment, theſe arguments ſeem perſuaſive, 1. The *Scorvey* being aſſented by moſt an Endemick Diſeaſe, which generally derives its production from the Conſtitution of the Clime, infers a verdict for the Air: and, 2. This is further confirmed, by being alſo æſteemed among the number of Contagious Maladies, which are univerſally communicated by Tranſportation of morbifique Miaſms, whereof neceſſarily the Air muſt be the chief Vehicle, and conſequently a more principal cauſe than the other. 3. Symptoms bearing Characters more obvious to ſenſe, offer an evidence very plain; wherefore if the Animal Faculty be the firſt ſufferer,

ferer, as appears by the Symptoms, *viz.* Laſſitude, Drowſineſs, Noiſe in the Ears, *&c.* and that the ſaid Symptoms of Laſſitude, *&c.* be perceived by the Patient, while his Stomach and its Ferment continue in their vigor, and exempted from any præternatural affection, then it's undeniable, but the Air is the primar Agent. Thoſe who eſpouſe the contrary arbitrement, aſſert the faculty of the Stomach to be impaired, and next after the Blood to be vitiated, before the appearance of any Laſſitude, or other Animal Symptom; moreover, that the word *Endemic*, importing only a common Diſeaſe among people (from ἐν and δήμος) doth not exclude the generation of a Diſeaſe to be from a Vitiated Diet, or any other *Non-natural.* Touching its contagion, they affirm a Diſeaſe may be primarily engendred within the Entrails, and afterwards prove contagious: But laſtly, whether the deciſion hereof be any whit material, in relation to the Cure, is left to the Reader.

§. 4. The

§. 4. The next circumstance that's worthy of inquiry, is the manner, how a Vitiate Diet, or impure Air, doth cause an Acidity in the Humors. We will suppose, That a *Salt Diet* * is the most common Efficient of the *Scorvey*, which being ingested into the Stomach, doth chiefly act on the *Nervorum*, consisting in a great proportion of *Volatil Salt* (whose office principally is, by contraction of the Fibres to corrugate the Stomach) and Spirits of the Arteries. It is then this extraneous Marin Salt, that attracts and absorbes the foresaid *Volatil Salts*, with the liquor they are contained in, in great measures; and hereupon occasioning a great Drought, forceth the Stomach to covet vast quantities of Small Drink; whereby the Stomach is immoderately cooled and relaxt; the foresaid *Volatil Salts* rendred fixt, and *Spirits* drowned and extinguisht; moreover the said *Extraneous Salt* having absorbed and attracted the *Volatil Salts* into its Centrals, they meet with the *Acid*, that's latent in its Bowels (as appears upon driving

* *i.e.* Salt Meat and Brackish Drink.

driving *Salt Marin* through a Retort) which through its contrariety to *Alcalies*, amortiſes the fore-mentioned *Volatils*. The conſequence upon this is, that the digeſtion is not perfected, and the contents not juſtly diſſolved and coæquated, but remain crude and imperfect, whence muſt happen Crudities and Obſtructions, which afterwards prove a *Baſis* for all other Diſeaſes to be eſtabliſht on.

§. 5. It is not to *Salt*, or other unwholſom Meats, we muſt ſolely adſcribe this Scorbutick Effect, but lay part of the charge on Drinks, that are uſed among us; in particular the Beer and Ale that's brewed about the City; the Water whereout they are brewed being abſolutely brackiſh, or imbued with a proportion of *Salt*, though not ſo great as to be diſcovered by the Pallat. That Water containing a Tincture of Salt, is thereby capacitated to make the ſtronger Drink, is moſt certain, and for that reaſon, becauſe the Water being ſomewhat brackiſh in *England*, and therefore making the ſtrongeſt Liquor, it's thence *Engliſh*

Beer

Beer is reputed the best and strongest in other Countries. Consequently to this Remarque, I find, that Beer or Ale brewed out of *Thames Water*, is more vigorous and spirituous, than what is made of other Water, because the former by having a commerce with the Sea, is more Salin; and thence it is also that *North-down* and *Hull-Ale* exceed *Thames-Ale* in strength, as being nearer to the Sea. This may likewise be confirmed by the practice of some Brewers, who to render their Drink the stronger, do commonly fling some small quantities of Salt into their Brewing; wherein exceeding sometimes a due proportion, doth impress so great a seasoning on their Beer or Ale, that it's manifestly perceived brackish by those that drink it. The reason of this sort of process is grounded on the insinuating and attractive Vertues of *Salt*, attracting the intire life and soul out of the Malt. Neither are Chymists ignorant of these attractive faculties, who when they are to extract a Spirit or Oyl out of Aromatics or Cephalic Herbs, generally dissolve a handful

or

or two of Salt into the Water, while it's in digeſtion. *Apothecaries* do alſo experience, that Roſes lying a few dayes in Salt, yield a water much more odoriferous, than if Diſtill'd off ſimple. Theſe Inſtances are produced to make proof, that the water of *London* is Salin, and conſequently highly Scorbutick. But probably an Objection may be ſtarted, that though *Thames* Water from its communication with the Sea, may be ſuſpected Salin, Why ſhould other Waters whereout Drink is alſo Brewed, be æſteemed ſo? To this I anſwer, That the Air of the City being perfuſed with ſalt Clouds, attracted out of the Sea, (which is no great diſtance thence) doth ſufficiently imbue it with that Tincture: Moreover, the Earth over which thoſe Waters ſtream, contributes to it a Saltneſs, being brackiſh, as may appear to any ones Guſt, that will adventure to taſte it; now that Clay Ground, and other ſorts of earth, do exude or ſweat out a *Salſugo*, or Saltneſs, is abundantly manifeſted in Salt Pits; and undoubtedly the Pit-water which *Cæſars* Army made

uſe

uſe of for two Years together, when they were quartered near the *Rhine*, ſourced from a ſalt Pit, though not ſo much Imprægnated, as to be diſtinguiſht by the Palat, or at leaſt the foreſaid Water was imbued with ſome Mercurial Vapours (but the former is more probable) which afterwards gave them a Diſeaſe like the *Month-Scorvey*; they being ſubject to a Vacillation and elaps of their teeth, with pains of their Gums. One ſort of Water we have not yet taken notice of, which is of ſtanding Pools, as that is reported, whereout that Liquor is Brewed, which goeth by the name of *Shoreditch Ale*, for ſtrength being Superlative to all other. No doubt but Water by ſtagnating, doth contract a Putrefaction and Saltneſs, which being thorowly allayed with the Cream of a fat brackiſh Clay, is naturally præpared to Brew thick fat Ale; whence that Water is vulgarly termed ſtrong bodied, whereas Spring water is accounted thin weak Water, and not capable to Extract the intire ſtrength of the Malt, as the other is; which is true enough ſpoken. This

Diſ-

Diſcourſe doth alſo infer ſour Beer, or Ale, to be very pernicious, likewiſe decayed Wines.

§. 6. Among the next relating to both the præceding Branches, we muſt impeach *Gluttony* and *Debauchery*, for two grand Scorbutick Abetters. The former by impoſing too great a burden on the Stomack, doth ſo much obtuſe the *Volatil Salts*, that the *Acid* thereby gaining a prædominance, and thereupon ſoon growing putrid, occaſioneth Crudities and Obſtructions, and ſo an Inlet to the *Scorvey*. The latter refers to exceſs of Drinking ſtrong Liquors, particularly *French Wines*, through which the Stomack ſuffering frequent inundations, their Spirituous and Volatil particles are attracted Crude, and Undigeſted into the Veſſels, which in a ſhort interval of time, Obnubilate and Drown the *Volatil Salts* of the Nerves and Arteries, as not being ſufficiently præpared to be Aſſimilated to them; and theſe Efforts being oft repeated, do at laſt Vitiate, Evaporate, and Amortize the Spirits.

On

On the other hand, the Liquor that's remaining in the Stomack, is left Acid and Acrimonious, in the ſame manner as was Inſtanced in the making of Vinegar.

§. 7. From what is here Diſcourſed, relating to the manner of a Salin Diet occaſioning a *Scorvey*, may eaſily be Collected, how a Salin Air operates the ſame effect, *viz.* By entring the External Pores, and being inſpired down by the Lungs, doth aſſault the Vital and Animal Spirits and Salts. 2. By contracting the Pores through its Exiccative and Abſorbing quality, and conſtipating them by its groſsneſs and craſſitude of ſubſtance, whereby reverberating and locking up within the Body the fuliginous ſteams, that ſtifle or ſmother the Spirits, and fixe the *Volatil Salts*, in manner, that they aſſume the Nature and Quality of a *Marine Salt*.

Touching the remaining Non-naturals, *viz.* *Motion* and *Reſt*, *Slee?* and *Wakefulneſs*, *Excretions* and *Retentions*, and the *Paſſions* of the Mind, though they come not within the no-

tion of Primar ſole Efficients, yet do potently contribute to the production of the *Scorvey*, by as much as by their inordinate uſe, they aggreſs, vitiate, diminiſh, and extinguiſh the *Volatils*, and give an increment to the *Acid*; which how it's effected, may eaſily be deduced from the præmiſes. To theſe adde a Melancholic Complexion and ill Conſtitution of the Bowels, eſpecially of the Spleen; alſo Fevers continual and intermittent, particularly a Quartan, which doth frequently expatiate into the *Scorvey*, *cæteris concurrentibus*.

Upon this præliminated Explication a deciſive touching the controverſie in *Par.* vii. may eaſily be attempted; *viz.* That both can be admitted principal Efficients in the *Scorvey*; for many though obſerving the exact Rules of Diet, have notwithſtanding by living in a Salin Air, contracted the *Scorvey*, which as hath been copiouſly expounded, is ſufficiently qualified to produce the *Diſtempers* forementioned. Moreover thoſe that derive the *Scorvey* from a Contagion (which hath been oft obſerved) do attract

tract the Scorbutic Seminaries and Miaſms through the Air, without the leaſt concurrence of Diet, as having been regular and wholſom. On the other part, a *Salt Diet* continued for ſome proportionable time, hath engendred the *Scorvey* in ſuch places, where the Air could not be ſuſpected ill, and of this there are examples numerous enough; but waving that, I will evidence it in a præſident, that is more fræquent, and of a ſhorter production. *Drunkenneſs* in ſuch whoſe Blood is not apt to be kindled into a Fevor, hath in a ſhort interval occaſioned an univerſal laſſitude and weakneſs in the Knees, Spots and Blotches about the Legs and other parts of the Body, laxity, diſcoloration, and ſoreneſs of Gums, pain and looſneſs of the Teeth, a ſour ſtinck of Breath, *&c.* which Symptoms do plainly declare it to be the *Scorvey*, and that produced without the ſuſpicion of an ill Air. So that either may be æſteemed a principal efficient, though where both do concur as principals, there it occaſions the *Scorvey* to be *Endemic*; but where it is contracted from either ſingly, there it's *Sporadic*.

CHAP. VIII.

Of a ſecond different internal Cauſe, being the cauſe of ſome Leg-Scorveys, *and many or moſt* Terminatory Scorveys; *namely* Saponary Blood.

1. *Inſtance, That there are two ſorts of Cauſes (contrary to each other) of the* Scorvey. 2. *The Conſtitution of the Blood in an* Alcalious Scorvey. 3. *The Error of* Sennertus *and others in aſſerting the Cauſe of* Roapy Blood. 4. *The true Cauſe of* Roapy Blood. 5. *Proof by Experiment of the Lixivial Conſtitution of the Blood in the* Scorvey; *and why the Blood is termed* Saponary.

§. 1. THE Tenor of the next præceding Chapter implies a *Putrid Acid*, prædominating over the *Volatil Salt*, to be a cauſe of one ſort

sort of *Scorvey*; here we intend to propose a *Scorvey* different from that, wherein the *Volatil Salt* being vitiated and augmented in too great a proportion, over-ballanceth the *Natural Acid*, and produceth a Constitution of Salts and Humors, likewise Symptoms, that are absolutely Scorbutique, but of a fiercer and more malignant quality. By the way, I must prævent my Reader from any hæsitation, wherein it may appear strange to him, that Symptoms that bear the same countenance, should be derived from two contrarily different Causes. As to this, it is an Observation evident enough in other Diseases; for instance the Colick is sometimes occasioned by Bilious Lixivious Humors, corroding the internal Tunic of the Guts, in which case they usually suffer a Contraction *in longitudine*; sometimes it's caused by an Acid flatuous phlegmatic Humor, and here the Guts are affected *in latitudine*. On the former is imposed the name of an *Hot Colic*, and on the latter a *Cold Colick*; the same may be also observed in Pleurisies and many other Distempers.

§. 2. The Conſtitution of the Blood in this kind of *Scorvey* is far different from what it is in the other; for here the Blood runneth into a thick cohærent Fluor, like Syrup, doth not coagulate or concreaſe; but continueth in the ſame form, without the ſeparation of the *Serum*, that in the other commonly floats on the top. The difference is likewiſe in colour and taſte; here the Blood appears in a purple, and to the taſte its Lixivial and Acrimonious. Touching the Symptoms; the *Acid Scorvey* exerciſes its fury moſt on the parts above the Navil, the *Alcalious Scorvey*, chiefly on the parts below, what farther diſtinction is remarkable, you ſhall read elſewhere.

§. 3. Certainly it was a great Hallucination in *Sennertus*, but far greater in others, that have wrote ſince on that Subject, to prætend an *Acid* the cauſe of *Pendulous Blood* (a term the Recentiors have borrowed from the fore-named *Sennertus*, though ill verted into Engliſh *Roapy*, as hath been animadverted before) which rather cauſeth

cauſeth a Coagulation, as appears by Experiment, upon inſtilling Acid drops into Blood or Milk; and yet this *Acid* is ſo abominably ſtretcht by a late Author, who obtaining a particular knack of writing a Story ſmoothly, doth endeavor to adaptate it to Symptoms in general of all ſorts of *Scorvey*; whence I find, neither he nor thoſe that harbour his Notion do arrive to a ſucceſs of curing ſome *Leg-Scorveys*, æqual to that of the *Mouth-Scorvey*, but are oft render'd infinitely worſe.

§. 4. The cauſe of this thick incraſſated cohærent Blood, that if poured into a Porringer, hangs in ſhort ropes or long drops, like Balſom or liquid Soap, when poured off, I impute to the fixation of the *Volatil*, which united to the Fixt Salt of the Blood, doth alcalize and calcine it, whence aſſuming the nature of other Calcined Salts (as *Salt* of *Tartar* and *Nitrum fixum*) doth attract and abſorb the *Serum* of the Blood, and ſome moiſture out of the Air, whereby that and the whole maſs is turned into a *Deliquium*, and ſo becometh

thick (the *Serum* being abſorbed) cohærent and pendulous; becauſe part of the Blood is naturally glutinous, which being tied cloſer together in its particles by the abſorption of the thinner and ſerous parts, muſt needs prove pendulous; of a taſte lixivious, becauſe ſuch all Calcined Salts appear to the Palat; and of a purpre colour, becauſe the Blood is aduſted from a florid red into blackneſs.

§. 5. That the Blood of theſe Scorbutics, which are here mentioned, is qualified in the manner deſcribed, will appear to any, that ſhall give themſelves the trouble of examining Scorbutick Blood, when occaſionally extracted by Phlebotomy; but leaſt ſuch as deſire to be ſatisfied in this point, have not a ready opportunity of examination, we will endeavor to convince them of this truth by experiment. Take Blood that's ſound, and poſſibly extracted for prævention or abating a Plethory, inſtil into it Spirit of *Sal Armoniac*, or of any other *Volatil Salt*, it ſhall præſerve it in its fluor, colour, conſiſtency, mixture

and

and other qualities, until it be evaporated, and then the said Blood by coagulating into a Mass, will separate from its *Serum*: But if instead of this, you affuse a small quantity of Calcined Fixed Salt, that's runned into a *Deliquium*, it will incrassate the Blood, change it into a deep purpre, render it pendulous and lixivial to the taste. After all, proving the particular Symptoms to issue thence as proper immediate effects, will crave an undeniable conclusion; but that shall be referred to a further inroad into this Discourse. I must not retire from this Subject, before I give the reason, why I have named this sort of *Scorbutic Blood*, *Soapy*, or *Saponary*; namely, because like *Soap* consisting of *Tallow* and *Lixivial Salt*, the Blood in this kind of *Scorvey*; is also compoled of a deflagrated incrassated *Sulphur* and a *Lixivial Salt*, both commixt and united into one Body; but how and through what causes it is rendred so *Soapy*, shall be told you in the next Chapter.

CHAP.

CHAP. IX.

Of the Procatarctic Cauſes of Lixivial Alcalized Salt, *in* Scorbutique Blood.

1. *That* Volatil Salt *is nothing but* Fixt Salt *volatilized by the commixture of* Sulphureous Particles *is proved by Experiment. The manner how a* Volatil Salt *is fixable.* 2. *The remote Cauſes of* Saponary Blood. 3. *That* Salt *is capable to produce two contrary effects*, viz. *an* Acid *and an* Alcali. 4. *A farther proof of the* Saponary Syntheſis *of* Scorbutic Blood.

§. 1. THe *Fixt Salt* of the Humors is the Original and Conſervative of the *Volatil*, for (according to one of the Hermetick Theorems formerly recited) a *Subtil Sulphur* penetrating into the pores of the *Fixt Salt*, cloſely knits it ſelf with its particles, and being of a ſubliming nature, that is derived from the igneous

igneous minims it contains, doth levitate, ſublime, and volatilize the ſaid *Salt.* Experiment doth aſſert this a certain truth; affuſe *Spirit* of *Wine* on *Calx Vive* (which beyond all Objection is prægnant of *Fixt Salt*) after a ſhort digeſtion, abſtract it, and ſome part of the *Fixt Salt* will be volatiliſed and ſublimed with the *Sulphur* of the foreſaid Spirit. Poſſibly here may be demanded, how doth it appear any of the *Fixt Salt* is volatiliſed? Hereunto I anſwer, 1. By the Taſte, the foreſaid Spirit proving more igneous, vibrating and pungitive to the Tongue. 2. *Spirit of Wine*, by reaſon of its *Sulphur*, is inflamable to the laſt drop; but being united to this *Volatilized Salt*, doth very difficultly receive a flame, or when inflamed, will ſcarce continue. One Experiment being too ſcanty, I will offer you another. *Volatil Salt of Amber* is fixed by abſtracting *Spirit of Salt* from it; and being ſo fixt, affuſe on it *Spirit of Wine*, digeſt them a while, and then abſtract the *Spirit of Wine* from it, and you ſhall find the *Fixt Salt* volatilized again. Hence I infer,

infer, 1. That the *Fixt Salt* is not only the original matter, but alſo the ſole conſervative and nouriſher of the *Volatil*, by yielding new ſublimable parts. 2. That the Conſtituent principles of a *Volatil Salt* are a *Sulphur* and a *Fixt Salt*. This being allowed or at leaſt præſuppoſed, doth detect the manner, How a *Volatil Salt* is fixable, *viz.* by divelling the *Sulphur* from it, or ſtripping it of its force and efficacy; ſo that thoſe externals that act againſt the foreſaid *Sulphur*, are to be æſteemed the Procatarctic Cauſes of rendring the Blood Scorbutic, and of lixiviating its *Fixt Salt*.

§. 2. The ſame remote Cauſes, which in one of the præcedent Chapters were declared Efficients of a *Putrid Acid*, are alſo impowered to lixiviate and alcalize the *Fixt Salt* of the *Blood*, though not in the ſame manner, or univocally, but *per accidens*, and æquivocally; ſo the Sun is virtuated to produce contrary effects æquivocally, in engendring Cold and Hot Bodies, moiſt and dry. A Salin Diet and Salin Air, by vertue of their *Salt Marin*,

Marin, do absorb and concentrate the Sulphurous minims of the Blood, which being inflamed, and rendred corroding, partly through its own nature, partly by its union and amplexe of the Saline parts, and being withal thereby *Fixt*, are both præcipitated to the *Fixt Salt* of the *Blood*, whereunto also uniting, do all become Soapy and Lixivial. Secondly, The *Fuliginous Salts*, that are too copiously occasioned in Saline Scorbutic ebullitions, are a principal cause, but for a more ample satisfaction I refer you to Chap. . How greatly the familiar sipping of Brandy and other adust Spirits, do contribute to the inflaming the Sulphurous particles of the Blood and lixiviating of it, is sufficiently obvious; likewise that fuming Tobacco, under the notion of concentrating and fixing the Sulphurous and Volatil particles, doth lixiviate and fix the Blood, needs no farther proof.

§. 3. Least I should leave the least scruple, that might induce the Reader, to suspect the contents of this Discourse,

I apprehend it expedient, to remove this Objection; which is offered by way of Quæry, How can a Salt Diet or Air, or rather Sea Salt, occaſion two contrary effects, *viz.* of rendring the Blood Acid, and Lixivial or Alcalious. I hinted before, that theſe effects are derived in a various manner, to wit, an *Acidity* is cauſed, as was explain'd formerly, by the ſeparation of the *Volatil Salt* and *Subtil Sulphur*, which is an effect *per accidens*; an *Alcali* is impreſſed on the *Salt* of the *Blood*, by an effect the *Marin Salt* produces *per ſe*; for through its igneous faculty, and eſpecially when its tumid with the abſorbing the *Sulphur* of the Blood, it alcalizes the *Fixt Salt*. 2. The fore-mentioned *Marin Salt* is not only naturally fiery, but vigorouſly augmented in its igneous quality, by its conjunction with *Lixivious Salt*, or *Excrementitious Choler*, that naturally ought to be ſeparated and evacuated by the *Gall Bladder* and *Cholidochus*, whoſe paſſages in a confirmed *Leg-Scorvey* are commonly for a time conſtipated, the Excrements of the

the Guts through their paleneſs and *livor* ſignifying as much; but withal obſerve, that the *Cyſtis Bilis* and *Ductus Cholidochus* continue obſerated only for a certain ſpace; for afterwards the foreſaid paſſages are forced open, by the abundance of groſs lixivial Choler, which then impreſſes a deep red Tincture on the Excrements of the Guts. Furthermore obſerve, That commonly the *Mouth-Scorvey* præcedes a *Leg-Scorvey*, and ſeldom do both invade the Body at the ſame time, but one upon the neck of the other; ſo that if the *Mouth-Scorvey* continue any conſiderable ſpace, the *Leg-Scorvey* muſt neceſſarily follow.

§. 4. Obſerve likewiſe, That ſome continual and intermittent Fevors, eſpecially Quartans, do ſometimes exchange into *Alcalious*, but no *Acid Scorveys*, as by their internal Cauſes and Symptoms, which the deep red Tincture and vehement ſtink both in Urine and Ordure, likewiſe a very ſaline Sweat and Spittle, do atteſt lixivial, ſevidently declared; and that which doth

doth poſitively evict the cauſe of theſe kinds of Scorbuts to be *Alcalious* and *Saponary*, is their Cure, which is chiefly to be performed by *Acids*, as *Spirit of Salt*, *Antimony*, *&c.* and by *Subtil Sulphurs*, and *Volatil Salts*; but in no manner by *Fixt Alcalies*, upon which an irreparable detriment hath oft enſued. Laſtly, To prove the undeniable truth of theſe Obſervations, the vulgar management of Sea-men (who are out upon long Voyages) in their *Scorveys*, which ſo inevitably they are incident into, uſing nothing but *Acids*, as *Spirit of Salt*, *Juices of Oranges* and *Limons*, wherewith they are abundantly ſtored, tells us, it's an *Alcalious Saponary Scorvey* they are ſubject to, againſt which an *Acid* is the diametrically contrary Remedy.

CHAP.

CHAP. X.

Comprizing the Examination of Scorbutic Principles *proposed by a late Author.*

1. *The Summary of the learned* Oxonian *Authors Treatise on the* Scorvey *recited, and proved erroneous. That* Scorbutic Blood *is neither* Rancid *nor* Roapy *in the sense intended by the* Oxonian. 2. *A recital of several absurdities necessarily ensuing on the concession of the* Hypothesis *offered by the foresaid Author.* 3. *That* Roapiness *in the* Blood *is not occasioned by the commixture of a lesser proportion of* Sulphur *with a greater of* Acid Salt.

§. 1. AGainst what is asserted in the two last præceding Chapters, nothing of moment can be farther objected, than the authority of our *Oxonian Author*, who for his learning, concise, smooth and elegant mode of Writing, may justly be cha-

racterized the Engliſh *Fernelius*, aſteeming withall, that he hath in ſome ſenſe ſurpaſſed *Eugalen*, *Salomon Albertus*, *Wierus*, *Sennertus*, and the reſt, that have treated on the Subject of the *Scorbut*; and among thoſe his other ſuperlative qualifications, I muſt alſo take notice of his Modeſty, not peremptorily aſſerting, but like a *Carteſius* affirming only a probability of that, whereon his whole ſubſequent Diſcourſe is grounded as its *Baſis*; *Tract.* 2. *de Scorbuto*, *Edit. Amſterd.* fol. 230. where the words run thus, *It's probable, that the Blood in the Scorbutic affection is altered, in a manner not unlike Wines, that grow Rancid or Roapy, as oft as they are overheated* (that is over-fretted) *for this is an Argument, that that Diſeaſe doth not depend ſo much upon* Dregs, *mixt with the Blood, as on a habitual intemperament of the Blood; becauſe a* Radicated Scorvey *is ſo difficultly cured, and ſometimes never. Moreover it may be ſtated, that the intemperament of the Blood, which is the parent of the* Scorvey, *is two-fold, as it is in Wine, namely Sulphurous and Salin;*

and

and Salin and Sulphurous. The whole Theory of the *Scorvey* is by the Author fore-mentioned briefly ſummed up in thoſe few lines, which to examine, is the chief affair of this Chapter. Firſt, He tells us, *It's probable*; But why is it probable? Becauſe probably it ſeemed ſo in ſome inconſiderable little Analogies and Reſemblances: I may as well affirm, that it is probable, his Horſe is a Mare, becauſe viewing him at a diſtance, he ſeems like one. Certainly, he that by too much ſtretching of the Cloth, endeavors to make all ſorts of Habits and Shapes out of it, muſt neceſſarily make a very incongruous Suit. This our Author hath practiſed in moſt of his Tracts, abſtracting Notions from Wine to illuſtrate his Theory of Diſeaſes; as firſt in relation to Fevors; Becauſe Wine is apt to be fretted, it's probable the Blood is alſo ſubject to a fret; whence a neceſſary concluſion is drawn, *That the Blood ſo fretting is either a Fevor*, or *rather the cauſe* of a Fevor; but *A probabili ad neceſſarium non valet conſequentia.* Neither doth the ſimilitude *quadrate*, the one

being a derivative from a Vegetable, that naturally is diſpoſed to the foreſaid alteration; the other from a *Vive Animal*, that when declining into a Fevor, is præternaturally affected. Moreover this fretting quality that Wines are incident into, is only of one kind; but the frets or fevors of the Blood are various and very different, as Quotidians, Tertians, Quartans, *&c.* Secondly, In relation to Convulſions, Becauſe the Blood is diſpoſed to fret in all the Veſſels of the Body, it's probable, that in the fretting of the Nervous Syſtem, it doth impel heterogeneous *Copula*'s and Exploſive Particles into the *Liquor Nervoſus*, and irritate the Nervous Syſteme to an exploſive motion, through which a *Spaſmodic affection* and a præternatural *Diatheſis* of the Brain, are occaſioned. A pretty kind of Rhetorick, exchanging the old ſignificant terms, into thoſe that are obſcureand æquivocal;however theſe*Probables* might very well be admitted, eſpecially being garniſhed with thoſe pretty affected Phraſes; provided the *Phænomenon* and reſemblance were omewhat more paral-

lel,

lel, and conform to Experiment; from which that they are infinitely different, I ſhall particularly inſtance in the compariſon of *Rancid* and *Roapy*, or rather *Scorbutic Wine* (for ſuch he would have it to be) with *Scorbutic Acid* and *Scorbutic Lixivial*, and *Saponary Blood*. That Wines by over-fretting become rancid, is agreed on by all Wine-Coopers, which in their uſual phraſe, they do not term *rancid*, but ſay, *It taſtes of the fret*, that is, Fuliginous, Empyreumatic, and Piquant, but not Acid; neither when they are over-fretted as much as they can be, do they immediately taſte otherwiſe than what is ſet down. Their Cure is performed, as he ſets forth, by being drawn off the Lees; which in a plainer way is to be underſtood thus; if it be obſerved, that Wines are inclined to fræquent frettings, or over-frettings, as all Wines are in the Summer ſeaſon, eſpecially if lying in a warm Cellar, to prævent the former, they endeavor to cool the place, where they lie, by ſtopping up all the Lights, and oft daſhing cold water over the Floor. The later, *viz.* Their

aptneſs to over-fret, is remedied by pouring a proportion of new Milk to the Wine, or Iſon-glaſs diſſolved, or other materials that are impowered to appeaſe, allay and ſweeten the heat and fury of the Sulphurous Spirits; but when Wines are abſolutely over-fretted, then indeed to draw them off the Lee, is the next remedy. The cauſe of an over-fret or rancidneſs, he aſſerts to be an imbodying or cogulation of the Sulphureous particles with the Salin, ſo as the former exceed the latter in proportion. This *Ætiology* may eaſily conduct the Reader into miſtakes, ſuppoſing the Conſtitutive Principles of Wine, *viz.* The *Sal*, *Sulphur*, and *Mercury*, to be diſtinctly contained therein, whereas it muſt be conceived, they are ſo intimately cæmented together in their minimal particles, that there is not the leaſt drop, but contains the foreſaid principles in its leaſt individual phyſical particle, ſo that you are not to imagine, that in Wine, that is thus declining, the *Sulphur* ſwims in one part, the *Spirits* in another, and the *Salt* in another, but that the Subtiler *Salt*, *Sulphur*, and

Mercury

Mercury, being united into one, do abscede from the grosser, into whose room and cavernicles external heterogeneal principles succeeding out of the ambient air, occasion such various alterations, as render the Wine rancid, roapy, *&c.* Those Heterogeneous Corpuscles, if they are sulphurous, as in the Summer season they generally are, then they alterate the Wine into *rancid*; if more gross and salin, as at other seasons they are, it becomes *roapy*. But Wines being subject to these alterations in all Climes, and Humane Bodies onely in some particular sorts of Air, which therefore (together with a vitious diet) render the Diseases thereof *Endemic*; this alone is an Argument sufficient to evince the Alterations of the Blood and Wine not to be comparative, and consequently the *Simile* to be dissonant. Secondly, Suppose the *Simile* allowed in Fevors, that as Wines fretting are indued with an intense heat, through the exaltation of their *Sulphur*, so the Blood fretting is attended with a dyscratic or intemperate heat, which for the præsent shall

alſo be allowed the name of a Fevor; then conſequently the Blood muſt be deemed Scorbutic, becauſe rancid; for Wines during their fretting are ever rancid, and taſte of the fret; and ſo all compounded Liquors, as Beer, Ale, Metheglin, *&c.* whilſt they are working, are rancid.

§. 2. The abſurdities that follow the *Hypotheſis*, are, 1. That there is no moving living Creature, but is troubled with the *Scorvey* in one part or other; for whilſt the Chyle is fermenting in the Stomach, or the Blood fretting in the Veſſels, which according to the dictates of Fermentators happens at all times, they become rancid. 2. In *France* I find Fevors more fræquent, than in any other Countrey, which in the ſenſe of my Author are all attended with fretting, and very probably ſome with overfretting; yet I could never obſerve any there afflicted with the *Scorvey*, and if they are, I am certain they have no proper name for it in French. 3. That all Heats, Spots, Blotches, and Puſtles, that burſt out into the Face and

and ambient skin, upon a fretting of the Humors, are Scorbutic Symptoms, *pag.* 234. *l.* 3, 4. which many Wine Drinkers are ſubject to in many places, where the Diſeaſe and name of the *Scorvey* are as little known, as the Man in the Moon. 4. That the fore-mentioned Scorbutic Eruptions, are onely ſafely cured by Remedies, that demulce and lenifie the incongruous Ferment (as its ſtiled *fol.* 340. *l.* 18. which is expreſſing an *ignotum per ignotius*) ſuch are *Starch*, *Gum Arabic*, *Gum Dragant*, *&c.* Theſe I am aſſured, never yet removed Scorbutic Eruptions, I cannot tell what they might operate at *Oxford*, and the Market Towns about it, where *Scorveys* are not ſo numerous, as to abſtract obſervations from them, ſufficient to teach the world a new Doctrine of Scorbutic *Dyſcraſies*, and *Copula's*. But this I dare declare for a truth, that real Scorbutic purpre, and yellow, ſome red Blotches, and Puſtles, I have removed, and known others to do the like, onely with Antiſcorbutic Volatils; which manner of Cure doth in

no

no wiſe ſquare with the Notion of *Rancid* blood. However it muſt be aſſented, that many Eruptions, ſuch as are recited in *pag.* 234. have been extermined by Contemperative Medicines, and Bleedings; but then they were not of the genuin Scorbutic iſſue. *In ſumma, admiſſo abſurdo uno conceduntur mille.* Wines that have been diſturbed by an Overfret, do ſeldom long continue only *Rancid*, but after a ſhort interval, are incident into a *Putrid Acid*, far different from *Vinegar*, and in that particular, may more exactly ſquare with Scorbutic Blood; but it is not from Emplaſtic Lenients theſe Wines re- the leaſt Rectification, for through them they are rather rendred far worſe. For the removing this ſort of dyſcraſy, *Coopers* experience the ſcenting the Cask with *Brimſtone*, to be very effectual in manner following; They dip a Linnen-rag into melted *Brimſtone*, which being grown cold and coagulated on the Cloth, is kindled into a flame, and hung through the Bung-hole into the Cask, until

until the flame be burnt out, and upon that the Bung-hole is stopt up close again; for the same purpose Lime, burnt Allom, and other Materials, that are prægnant of an *Alcalious Salt*, are commonly used. 5. Upon the concession of the Authors *Rancid Hypothesis*, the Blood of Scorbutics of that degree, ought to appear smoaky, Sooty, Empyreumatic, not easily Coagulable; on the contrary, it's observed *Acid*, Coagulable, Ill coloured, *&c.* I will conclude this Branch with a Caution, That all Innovators ought rather to Demonstrate their Notions *a Posteriori*, that is, they ought to Invent and Illustrate the Cause, by the Effects and Symptoms, and not to invent Notions of Causes, and by their Virtuality, or by what they probably seem capable to act, to assign their Effects; for that is oft contradicted by Experiment.

§. 3. The other Branch falling under our consideration, is the *Roapiness* of Wines, wherein the *Coopers* generally observe a Gradation of Alteration; for first they begin to Pall, and

and grow Flat, next they fall into Clots and Lumps of Gelly, and then they ſay, the Wine drinks tender; at laſt, their Clots running into one, cauſeth the Wine to become *Roapy*. This the worthy Author affirms, is occaſioned by the aſſociation of a leſſer proportion of *Sulphur*, with a greater of *Acid Salt*, or *Tartar*. It's an Univerſal Remarque, that *Sulphur* and an *Acid Salt*, without ſome other *Intermedium*, that is amicable to both, are inſociable; for affuſe a *menſtruum* purely *Acid* (as Rain water acuated with Oyl of *Vitriol*, *Salt Nitre*, *&c.*) to *Sulphur*, and digeſt it *ad Infinitum*, no Tincture ſhall be Extracted, but upon the leaſt digeſtion with a Lixive, or any Unctuous Liquor, the *Sulphur* yields its whole body, and entirely unites. 2. It's averred, *pag.* 234. *l.* 31. That *Roapy* Wines are reduced by fixt *Alcalies*; which on the contrary, I know ſome that arrive to their Mark, by diſſolving *Roch-allom* into them, that by all is agreed to be an *Acid*, and conſequently doth ſubvert this *Roapy Hypotheſis*. 3. The blood of thoſe Scorbuticks, that contract

tract their Diſtemper on a long Voyage at Sea, muſt be allowed to be either *Rancid* or *Roapy*. That it's the latter, the Symptoms mentioned *Tract. de Scorb. pag.* 234. *l.* 21, 22, 23. declare, *viz.* Cutaneous Eruptions, Sloath of Limbs, Difficulty of Breathing, *&c.* with which Scorbutic Seamen are ſufficiently infeſted. The remedies uſed ſucceſsfully by them are *Acids*, *viz.* Juice of Limons and Oranges, Tamarinds, Spirit of Salt, *&c.* on the contrary, they experience Spirits of *Scorvey-graſs*, of *Sal Armoniac*, and others of that nature Detrimental. The Argument collected hence *a Juvantibus*, which are *Acids*, evinces their Blood to be *Alcalious* and *Lixivial*. So that I may ſafely conclude, that our Authors *Hypotheſis* is not only Erroneous, but too ſcanty, ſince it only appoints Contemperatives, and *Volatil Alcalies* for Remedies; and thoſe being miſ-applied (as too frequently happens) are unpowered to render the Diſeaſe far worſe, and provect it into a *Terminative Scorvey*. 4. I diſcover a great Contradiction, in illuſtrating ſome *Alcalious* and *Lixivial*

vial Symptoms, to proceed from *Acid* cauſes, *viz.* *Pendulous* Blood, which though not agreable with his ſuppoſal, he aſſerts that the lixivial parts abſcede from the Blood, by being diſſolved in the *Serum*, having quite forgotten his *Pendulous Acid* principle. Thus I read, *pag.* 256. in *Sign.* 8. the *Ætiology* of *Lixivial Urin* expounded, which Paraphraſe is no where received, but in the Latitute of 51 ½. 5*ly*. To evade all Objections, and to render Notions more Plauſible, his Diſcourſes are obſerved, to be armed with a Quinary number of Principles, *viz.* *Spirit*, *Sulphur*, *Salt*, *Water*, and *Earth*, by which to Illuſtrate the Nature of Bodies, will prove as ſuperfluous, as (in his own phraſe, *pag.* 3. *l.* 28. *Diatr. de Fermentatione*) to ſay, a Houſe doth conſiſt of Timber, Wood, Stones, Brick and Lime. For a Spirit being a compoſite of *Salt*, *Sulphur*, and *Mercury*, ſignifies it ſelf to be a *Principiatum*, and not a *Principium*. For proof, I offer the moſt *Alcolized* Spirit of Wine, which in the proceſs of *Spiritus Calcis*, being oft abſtracted from *Calx Vive*, its *Volatil Salt* (which for-

formerly I have demonstrated to be *Fixt Salt*, rendred *Volatil* by the admixture of *Sulphur*) is refixt, and detained by the *Alcali* of the *Calx*, so that at last nothing passes the *Alembic*, but a pure *Lymph*; whence it's evident a Spirit is a Compound, and no Principle, which ought to be *Simple*. The next multiplication of Principles is the stating *Earth*, and *Salt*, different Elements, which in effect are *realiter* the same, though of distinct Nomination. *Earth* is an immature *Salt*, which by Digestion easily passeth into a Salin body. The *Terra damnata* of *Vitriol*, affords an indubious Argument for Evidence: This though very well washed from the *Fixt Salt* it contain's yet being exposed to the warm Sun for some long time, and then washed over again, yields a considerable quantity of *Vitriolat Salt*, which that it is not attracted out of the Air, but engendred by Digestion of its Substance, appears by the diminution of weight of the said *Terra damnata*, after it is washt. So that the difference between *Salt* and *Earth*, is no other than between Stone and Brick,

or

or a *Heterogeneous Copula*, and an *Incongruous Ferment.*

CHAP. XI.

Containing Practical Obſervations Præliminary to moſt *Scorveys.*

1. *Acute Symptoms præcurring an* Acid Scorvey. *How it is Originally engendred.* 2. *Mixt Symptoms, partly* Chronical, *and partly* Acute, *præcurſors of an* Acid Scorvey. 3. *Chronical prævious Symptoms.* 4. *That thoſe prævious Ebullitions mentioned in the præcited Obſervations, do not render the Blood* Rancid. *The Notion of* Rancid *Blood dangerous in Practice.*

§. 1. THe Practical Obſervations which I do here propoſe, will render Obvious to you, how the Blood declines into a putrid *Acidity.* It is a remarque I have at ſundry times made, that ſome Bodies, before they ex-

expreſſed any Sign or Character of being moleſted with an *Acid* Scorbut, undergo a ſmart Ebullition of the Liquors in the Veſſels, depending upon an accenſion of the Spirits, and deflagration of the Bituminous Particles of the Blood, whereunto ſome Catarrh, Rheumatiſm, Laſſitude, Pain in the Head or Bowels, or ſome other Symptoms, are attending, which render it dubious, whether this ſort of Fever be Eſſential or Symptomatick; however Antifebril Remedies, as Bleeding, Purging, Contemperatives, and Sudorificks are præſcribed, the ſucceſs whereof in the ſpace of three or four dayes, commonly amounts to the abatement of the Fevor and other Symptoms, though not to a perfect Reſtitution of Health, the Patient for ſome ſhort time poſſeſſing only the condition of a neutral State; hereupon manifeſt Scorbutic Symptoms begin to take up their quarters with him, as Laſſitude, Sloath in Motion, Difficulty of Breathing, Indigeſtion of Stomach, Interrupted ſleeps, and Diſturbed with Dreams, Spots, Blotches, and the like.

§. 2. The content of the præmiſed Paragraph I do affirm to be the Morbifique tranſaction in ſome, though in others I likewiſe obſerve, that the præceding Ebullition, or Tumultuation of the Blood is not ſo vigorous, as to cauſe them to think more, than that they only are a little out of order, and ſo the Juices of the Veſſels detumefying, leave them in a kind of neutral ſtate; which manner of Ebullition and Intumeſcence oft returning, increaſing and decreaſing, doth at laſt reſult to the ſame Effect, as if it had been as ſmart, as what is above deſcribed. Theſe are certain and true Obſervations, any Phyſician may make on Bodies, before the *Scorvey* declares. A third Obſervation I ſhall ſubjoyn, after the Explication of the two former. By theſe prævious commotions the Blood is grown extreamly Turbid and Diſturbed in its parts, mixture, conſiſtency, nitour, ſapour, and other qualities, like Water in a River, that grown Muddy and Thick upon a Storm, raiſing thoſe Impurities, that lied on the bottom.

Now

Now the fæculencies and *Acid* tartarous Humours, that by ſtagnating in the Veſſels of the *Meſentery*, and other remote parts, being raiſed, and commixt with the Maſs of Blood, choak up and extinguiſh the *Spirits* and *Volatil Salts*, damping withall the flaming of the Bituminous particles, upon which the Ebullition ceaſeth. The cauſe of theſe Ebullitions is the ſaltneſs, induced into the Humours by a *Salin Air* and *Diet*, which obtaining a power of condenſing, and congregating the *Spirits* or *Volatil ſalts*, and ſulphurous or bituminous particles of the Blood, cauſe an accenſion of the foreſaid *Volatil ſalts* and *Sulphurs*, whereunto by conſtipation of the Pores the groſs *Salin Air* doth alſo very much contribute. In this conflagration the *Volatil Salts* are in a great part diſſipated and conſumed, the other part ſtifled, choakt, or extinguiſht by the riſing of the *Acid* ſalin dregs, whereby the whole Maſs is not only turned *Acid* (how the diſſipation of the *Volatil Salts* occaſion an *Acidity*, you have read before) but grows putrid

Acid by the commixture of fuliginous acrimonious Salts, that through the foreſaid Ebullition and conflagration are occaſioned, and through the conſtipation of the Pores repelled into the Blood. The cauſe of the latter Obſervation may eaſily be collected, from what is here ſet down touching the former.

§. 3. A third remarque taken from Scorbutics is, that many gradually and inſenſibly without any ſuch prævious Ebullitions, as are above mentioned, undergo an alteration in their Temperament and Faculties; firſt obſerving a ſloath in their Limbs, nauſeous ſpitting in the Morning, an ill braſs taſte in their Mouth, crudities and imbecillity of Digeſtion; afterwards do ſucceed Spots, Laxity, and Diſcoloration of Gums, ſtink of Breath, and ſo the reſt in order. The Cauſe of this ſort of Morbifique progreſs is the Blood, gradually declining to a putrid *Acid*, in the ſame manner as hath been explained in one of the fore-going Chapters.

Though the firſt of theſe three Obſervati-

vations seem to have some resemblance to the nature of *Rancid* Blood, occasioned by Fretting or Fermentation, and the manner of Cure appointed in the oft cited Treatise *de Scorbuto*, to be performed by Demulcers of the Blood, as Phlebotomy, and contemperatives: upon a more deliberate consideration, you will conclude their difference almost contrary to each other; for, 1. All Ebullitions, especially that expressed in the Illustration of the foresaid first Observation, are not Fermentations. 2. The worthy *Oxonian* Author infers all *Rancid* Blood Scorbutic, though it be still on the Fret, which is greatly erroneous, the *Scorvey* being a Chronic or long tædious Disease; this a prævious distemper, that is soon removed, or at least altered into a contrary Intemperament, *viz.* From an Acrimonious hot, to an *Acid* cold Disease. 3. The foresaid Notion is highly dangerous, and oft proves fatal, in deriving thence a Method of Cure; for forming Indications, that this being a hot sulphurous Distemper, lenient and cooling Remedies are

indicated, which if long continued after the Fermentation is quieted, and an *Acid* diſpoſition introduced, do render the Diſeaſe incurable.

§. 4. It is only in ſome, that this Ebullition is a præcurſor to the *Scorvey*, whereas the Notion of *Rancid* Blood doth infer all *Scorveys*, that are not depending on pendulous blood, effects of an immoderate Fermentation.

CHAP. XII.

Declaring a further Illuſtration of a *Saponary Leg-Scorvey*.

1. *The Symptoms of a* Saponary Leg-Scorvey. 2. *Proof that the Bituminous parts of the Blood, do eaſily unite with the* Fixt Salt. *Pendulous Blood is not miſcible with* Acid Salt.

§. 1. I Have formerly obſerved, that an *Acid Scorvey*, upon a long con-

continuation, changeth into a *Saponary Scorvey*, which as was hinted before, is the Cauſe of ſome *Leg-Scorveys*, whoſe Symptoms, are Inflamed, Tumefied, Corroding, Phagedænic, Cancerous Ulcers, Hot burning and pricking Nocturnal Shin-pains, fræquent glowing of the Calves of the Legs and Plants of the Feet, an *Eryſipelas Phlegmonodes* of the Legs, ſalin pungitive Rheumatiſms and Defluxions to the *Perioſtium* of both the *Foſſils*; beſides a ſaturated Lixivial Urin, a fuliginous fowl Stinck of the Body; the Blood when extracted by Phlebotomy appears of a deep inflamed Subpurpureous aſpect, beſides many other Symptoms, all which to any Judicious Phyſician are ſufficient Teſtimonies of an *Alcalious* conſtitution of Humours. But this is not all; for the Blood in this Caſe is not only *Alcalious*, but *Saponary*, as now will be made apparent to you. There being a large proportion of impure *Sulphur*, or groſs Bituminous Particles, mixt with the Humours in this degree of *Scorvey*, the *Alcalious* fiery Salts do eaſily at-

tract, Colliquate, and Unite them to their own Particles, which abſorbing the *Serum* in a great meaſure, muſt needs render the Blood thick, cohæring, and a little obductible.

§. 2. That the Bituminous parts of the Blood are ſo apt to be united to the *Fixt Salt*, is evident from the ready commixture of Tallow, Train Oyl, or other unctuous bodies with Pot-aſhes in the Compoſition of Soap, from the reſemblance whereunto (as formerly hath been intimated) I have termed the fore-mentioned conſtitution of Blood *Soapy*, or *Saponary*. The ſame Promptneſs of Unition ſeveral other Chymical Præparations do likewiſe confirm, as in particular; the Ebullition of *Sulphur* with the diſſolution of *Salt of Tartar*, *Fixt Nitre*, or a Lixive of *Calx vive*, in the proceſs of *Lac Sulphuris*; alſo in the Præparation of *Hartman's Sulphur* of *Antimony*, where the *Antimony* being fuſed by the violence of a ventous Fornace, and inſtilled into the deliquious Oyl of *Tartar*, its Sulphurous parts are immediately Imbodied with the

Al-

Alcali of the foresaid *Tartar*. Whence we may plainly Collect, that in our Authors *Pendulous Diathesis* of the Cruour, which by him is supposed to be *Acid*, there is no probability of their ready Coalition. And after all, I must tell you, that the Blood in that sort of *Scorvey*, which is not *Rancid*, as he terms it, is not absolutely *Roapy* or *Pendulous* like Syrup, *Barbadoes Treacle*, or *Therebinthin*, as the *Oxonian* Professor intends it, but far different.

CHAP. XIII.

Of the Causes of *Scorbutic* Symptoms.

1. *The Cause of a* Scorbutic *Lassitude and Imbecillity of Limbs. That a* Scorbutic *Lassitude is not occasioned through a Fermentation of the Nervous Liquor and the Extravase Blood. That the Nervous Juices are not contrary to those of the Veins and Arteries.* 2. *The Cause of a* Dyspnœa, *or Difficulty of Breathing.* 3. *The Cause of a Low, Quick,*

and

and Inæqual Pulſe. 4. *The Cauſe of a thick Red Urin.* 5. *Of Spots and Blotches.* 6. *Of the Bleeding of the Teeth, and Hæmorrhages.* 7. *Of Fainting and Palpitation of the Heart.* 8. *Of* Erratic *Fevers.*

§. 1. IN courſe I ought next to Adapt theſe præceding Cauſes to their Effects, *viz.* Scorbutic Symptoms, in which I judge I ſhall not find that difficulty, or be Obliged to ſtrain the former, to ſquare them with the latter, ſince I arrived to the Knowledg of them by the Obſervation of their Effects. I ſhall commence with the Explication of the Cauſe of Laſſitude, and Sloath of Limbs, as ordinarily the firſt budding in a Scorbutic Body. A Laſſitude, Debility, and Sloath of Limbs, are Affections of the nerves, which originating from the marrow of the Brain & Back, muſt neceſſarily derive their Cauſes thence, unleſs we ſhould conceive them naturally to draw in at both ends; but there being uſually concomitant other Symptoms of an affected Brain, as Drowſineſs, Obtuſeneſs of the Internal ſenſes, *&c.* doth amply

amply confirm, what is asserted. Wherefore the Blood according to the first Observation mentioned in *Chap.* 11. being affected with a tumultuation, the Spirits and *Volatil Salts* are inflamed, and rendred Acrimonious, which being the principal constituents of the Animal Juices, must necessarily prick the Nerves, through which they pass, and incommode the Nervous parts, to which they are transmitted. As for the Imbecillity and Sloath of Limbs, also the obtusion of the Animal Faculties, they depend on the intemperature of the Animal Spirits, not being potent enough to perform their Offices with alacrity, to which their accustomed just Temperament is absolutely requisite. By the way you are not to apprehend here, that the said Lassitude is occasioned through a Fermentation, hapning upon the appulse of the *Nervous Liquor* (rendred *præternaturaly Acid*) to the Articles, and there meeting with *Lixivial Blood*; for the constitution and temperament of the *Nervous juices* are not so extreamly different from that of the *Blood*, as to be contrary to it, which in this sort of Fermen-

Fermentation or Ebullition is neceſſary it ſhould: I can conceive no more difference between them, than between *Spirit of Wine* and *Wine*, which former cannot be indued with any other qualities, than what it derives from the latter. And here it is, that trite Maxime is verified, *Vitium primæ coctionis non corrigitur in ſecunda, nec ſecundæ in tertia.* So that, if the conſtitution of the Blood in the Arteries be *Acid* and not *Lixivial*, the Animal juices muſt likewiſe be *Acid* and not *Lixivial*, as being engendred by a further digeſtion out of the ſaid Arterial blood. Hence I argue, that Arthritic pains in the *Scorvey* do not proceed from a Fermentation between an *Acid* Nervous Liquor, and *Lixivial* blood about the Joynts; moreover as you ſhall be further ſatisfied below, the *Lixivial Salts*, that are caſt forth to the circumference in an *Acid Scorbut*, do not partake of an Acrimony, or at leaſt not ſo intenſe, as to excruciate the Limbs with thoſe inſufferable pains. But after all, the indication deſumed in this caſe from the Nervous Liquor, aſſigns an Alcalious Medi-

Medicine, and that which is collected from the Lixivial Blood, indicates an Acid; an abſurdity not to be admitted in Phyſick, that one and the ſame Diſeaſe ſhould require two Medicines *per ſe* contrary to one another.

Neither can I aſſent to that opinion *Tr. de Sc. p.* 250. *l.* 25. which aſſerts the cauſe of a Spontaneous laſſitude and weakneſs of the knees and legs, to be an infarction of the pores of the Muſculs with Excrementitious humors, through which the Animal Spirits are obſtructed in their paſſage; for it is not obſerved, that there is any Tumor or Tenſion in the fleſh of the ſaid Muſculs, but commonly hangs lank and laxe; on the contrary, where there is a real Tenſion and Tumefaction of the Muſculs of the Legs, which ſome groſs Bodies are ſubject unto, we do not find any other, then a ſmall compreſſion of the Nerves and Tendons, notwithſtanding which, the Animal Spirits have their free influxe and refluxe, and the Limbs their ſenſe and motion; wherefore if there be no obſtruction or conſtipation in this caſe, much leſs in the other, and conſequently

quently it muſt be the Animal Faculty and Loco-motive Spirits, being præternaturally affected, that are the occaſion of theſe laſt fore-mentioned Symptoms.

§. 2. The *Dyſpnœa* or difficulty of Breathing, that ſo oft is implicated with the *Scorvey*, depends on the ſtagnating of groſs Acid Blood in the *Vena Arterioſa* or *Arteria Pulmonalis*, *Arteria Venoſa* or *Vena Pulmonalis*, and in the Pores of the *Parenchyma* of the Lungs; for every *Syſtole* propelling the ſtreams of Blood into the foreſaid Artery faſter, than it is received through the Pores of the *Parenchyma* into the *Lung Vein*, the Lungs muſt neceſſarily be ſtuffed, ſwelled up, and conſequently much oppreſſed by the weight of this ſtagnating Blood. But that I may prævent you from lapſing into the ſame error my Author is fallen into, it's convenient I acquaint you here with the meaning of *Dyſpnœa* or difficulty of Breathing; *Reſpiratio Anheloſa*, or ſhort and thick breathing, or in the common phraſe, *Short windineſs*, *Aſthma*, or

or improperly *Phtyſick* and *Orthopnæa*, or the worſt and extream degree of *Phtyſick* and their difference; for *qui bene diſtinguit, bene docet.* In a *Dyſpnæa* the breathing is ſomewhat long and ſlow, with the ſeuſe of an oppreſſion or weight, as if ſomething kept the *Lungs* down. A *Reſpiratio Anheloſa* is a quick and thick Breathing, as you may perceive in your ſelf, after any ſmart Exerciſe, as Running, or Carrying a Weight, *&c.*

An *Aſthma* is a thick and ſhort breathing, accompanied with a wheeſing noiſe, and commonly alſo with a Cough. An *Orthopnæa* is a long and ſlow expiration, and a quick catching (as it were) inſpiration, attended with ſuch a ſtifling, that the Patient is forced to ſit upright, thruſting his Mouth up and gaping for Air.

A *Reſpiratio Anheloſa* is alſo frequent among Scorbuticks, and is occaſioned by a Putrid Acid Blood, that is (as I have told you before) Fuliginous and Acrimonious, by means of thoſe ſharp ſooty ſteams it irritates, and prompts the *Lungs* to a quick breathing, to prevent ſtifling, and to attract

attract a clearer Air inſtead of thoſe ſooty Evaporations, which in ſome I have obſerved ſo copious, that their Tongue was covered with a black ſcum, not unlike what is frequently taken notice of in continual ardent Fevors.

§. 3. As the Pulſe in reſpect of quickneſs and æquality of motion, doth proportionably correſpond with the Reſpiration in a healthful, and likewiſe in a morbifique ſtate; ſo it doth in the *Scorvey*, where in this degree it's quick, frequent, and unæqual in motion, which is occaſioned by the ſame cauſe, *viz.* by Acid Fuliginous Blood, ſtimulating the Vital Faculty of a quick motion, and impoſing a neceſſity on the Ventricles of the Heart to an expeditious exploſion of the Acrimonious *Cruor*. The inæquality of Pulſation depends on the unæqual mixture of the Blood with thoſe Fuliginous ſteams (or *Heterogeneous Copula's*) that do ſo unæqually vellicate the ſides of the Ventricle.

§. 4. A ruddy and thick Urin is moſt

moſt commonly an attendant of a *Præliminary Scorvey*, which is comprehended and ſpecified in the two foremoſt Obſervations of *Chap.* 11. the production whereof is a diſſolution of thoſe deflagrated Salts and Sulphurs in the *Serum*, which afterwards is præcipitated by the Putrid *Acid*, that's ever a ſequel to the Scorbutique Ebullition, and ſo abandoned to the Kidneys and Ureters; but as the ſaid Ebullition doth onely occaſionally happen now and then, ſo the fore-mentioned ruddy Urin doth onely appear on thoſe occaſions. For the greater part the Urin is turbid, and copiouſly ſaturated with a thick ſediment, that is apt to furr to the ſides and bottom of the Chamber-pot, being nothing elſe, but an excretion of crude indigeſted Tartar, or Acid Salt, from the Maſs of Blood; if at ſome ſeaſons the Urin appears thin and aqeous, that may happen either thorow the potent coagulative quality of the acidity in the Blood, not ſeparating the ſuperfluous and excrementitious Tartar; or through ſome obſtruction of the paſſages, leading to or from the

Kidneys, ſuffering the thin only to paſs, and retaining the thick. Moreover obſerve, that in thoſe thick drab-by Urins, upon ſome ſtanding the groſs ſediment is apt to ſinck to the bottom, leaving the middle clear and tranſparent, and a cream ſwimming on the top, which is nothing but the mucilaginous part of the Tartar, through its lightneſs recovering the ſurface of the Urin.

§. 5. Spots and Blotches of ſeveral colours do ordinarily ſurvene a *Scorvey*, and are cauſed by a condenſation of the ſulphurous parts of the Blood, that are deflagrated, and *Volatil Salts* amortized through the *Acid*, in the pores of the ambient Skin or *Cutis*, where they are depoſed or deſerted by the *Acid Blood*, withdrawing it ſelf from them, and through its penetrative faculty inſinuating into the Veins, returns by the circulative motion into the Body; whereas the others being ſo much obtuſed, are rendred incapable of reverting into the Veſſels. Theſe Spots and Blotches are not dolorous, becauſe the acrimony of

of the deposed Salts is obtused; their colour if red, they derive from the Sulphurous or Bituminous parts of the Blood, mixt with the Volatil or Amortized Salt; if yellow, from an admixture of part of the *Acid Salt*, condensed and obtused by the reaction of the said *Volatil Alcali*, which now mentioned obtused *Acid*, if left commixt in a greater proportion with the *Alcali*, and with a lesser proportion of the Bituminous Particles, render those Blotches of a livid tincture.

The production of Scorbutic Pustles and Botches differ from Spots and Blotches in this only, that the Salts in these latter are diluted, or dissolved in some part of the *Serum*, which in the former are more condensed and coagulated. Some of these are without pain, others are painful; the latter hapening, because the acrimony of the foresaid Salts is not totally obtused by reaction.

§. 6. The bleeding of the Teeth, fræquent Hæmorrhages of the Nose, and Hæmorrhoids, also immoderate Menstruations, and sometimes a bloody

Flux, are Symptoms of this Diſeaſe, occaſioned through a ſerous *Acid Blood*, rendred acrimonious and corroding by the Imbibition of fuliginous Salts, corroding the termination of the Veſſels. Note, that in moſt Scorbutics are two ſorts of Blood, *viz.* A groſs and fæculent Blood, coagulating and præcipitating it ſelf from the more ſerous and fluid parts. The groſs Blood floats about the Entrails and lower parts, and is καταῤῥοπος; ſo the other being more fluid and light, is more apt to be ἀναῤῥοπος, and to ſtream upwards. Thoſe intollerable Gripings of the Guts without a looſneſs, which Scorbutics here are ſo miſerably tortur'd with, are likewiſe occaſioned by the ſame corroſive Humors, or rather nitrous *acid Juices*, infeſting the nervous, and conſequently moſt ſenſible Tunics of the ſmall Guts. That the cauſe of theſe Autumnal Epidemic Gripings of the Guts, the Inhabitants of this City are ſo much expoſed to, is a *Nitrous Acid*, appears partly by the *Procatarticks*, *viz.* Liberal Drinking cold ſour Small-beer, when they are heated by the æſtuating Rays of the Sun,

Sun, going cool in their Clothes, and lying half Naked in Bed, immoderate eating of Horary Fruits; and partly by the Cure (*Argumentum a Juvantibus*) Volatil Salts and Aromatics, not only giving ease, but oft removing the Distemper. But that these *Acid Juices* should distil from the Brain through the Nerves, or be the *Liquor Nervosus* rendred *Acid* (as our Learned Author asserts in a late Treatise intitled *Pharmac. Irration.*) and all this while the Brain continue unaffected with any Symptom, *Non credo.*

Whence frequent Spitting, Laxity, Discoloration, Corrosion, and pain of the Gums and Teeth do proceed, hath been declared formerly.

§. 7. The Fainting and Palpitation of the Heart is caused by fuliginous acre steems, suffocating the Heart in the former, and Vellicating its Ventricles in the latter.

From what hath been already explicated, may easily be Collected the cause of Vomiting, Nauseousness, Punctorious pains of the sides

of the Breaſt, tearing pains of the Stomach, Looſneſs, Head-ache, *&c.*

§. 8. Thoſe Erratick Fevors, that ordinarily are obſerved to attend the *Scorvey*, are oft occaſioned by a copious quantity of Fuliginous Salts, that have been Deflagrated, and by their long continuance have attracted ſome proportion of impure Sulphurs, and ſo take flame again.

CHAP. XIV.

Of the Deſcription of the *Scorvey.*

1. *The Deſcription of the* Scorvey. 2. *Whether it be an* Occult Diſeaſe, *or* Morbus totius ſubſtantiæ. 3. *Whether it be a* Similar *or* Organical *Diſeaſe.* 4. *Which is the part* Primarily *and* Principally *affected.*

§. 1. THe *Scorvey* being ſeated in ſeveral parts of the Body, occaſioned by various Cauſes, and

and attended with a train of all manner of Symptoms, appears as if it had no certain Essence, and consequently is not capable of a description so *Pathognomonic*, as other Distempers, and therefore you must be contented with such as can be given of it, *viz.* *The* Scorvey *is an Universal, Multiform, Variable, Endemic, and Contagious Disease of all the parts of the Body, particularly of the Stomach, Spleen, and Liver, occasioned by a Salin Blood, and attended with a Cachexia of all the parts, Spontaneous Lassitude, Pesanture and Imbecillity of the Limbs, but especially of the Knees, difficulty of Breathing, sore and lax Gums, Spots, Blotches, Pustles,* &c. The Universality of this Distemper consists, 1. In Attaquing all People generally more or less, inhabiting a Scorbutic clime. 2. In a Præternatural disposition of all the parts. It's Multiform, because it assumes all shapes of Diseases, there being scarce any Distemper, which in one Symptom or another, it doth not resemble. Moreover, it's a Cold, Hot, Dry, and Moist Disease, as it's Symptoms do plainly demonstrate,

viz. Inflamed hot Puſtles, *Eryſipelas*, cold Oedematous Legs, moiſt Rheumatiſms, dry Scabs, *&c.* It's alſo variable in all manner of reſpects, 1. Variable in the Subjects, there being ſcarce two in a Hundred, whoſe Symptoms are alike. 2. In the parts affected, being commonly chiefly rooted in the Stomach, ſometimes in the Spleen, other times in the Liver; moreover, *per* μεταστασιν oft transferring its head quarters from one part to another, and exchanging the whole *Syndrome* of Symptoms into another quite different, and alſo in progreſs of time paſſing from an *Acid* into a *Lixivial* and *Saponary Scorvey*, or from a *Mouth-Scorvey*, into a *Leg-Scorvey*, and thence into a *Joint-ſcorvey*, or ſometimes into a *Terminative Scorvey*. That this Diſtemper is endemic (*Tam ratione aeris quam aquæ*) hath been declared elſewhere; and certainly it is Contagious, ſince moſt Endemic Maladies are ſo, there being ordinarily Miaſms, or perfect Scorbutic ſeminaries tranſported, by means of the Vehicle of the air from one Body to another, which obtaining a power of producing their like out of the

the humours of ſuch Bodies, into which they are transferred, engender an abſolute *Scorvey*, in a far leſs ſpace of time, than if it had primarily took its riſe in that manner, I have heretofore explained. All the parts of the Body and Humours being thorowly infected with the Scorbutic Seminaries, the Spermatic parts cannot be free, which muſt therefore alſo render this Diſtemper συγγενὴς and Hæreditary. 1. By means of the *Semen* of the Parent, and its plaſtic faculty. 2. Of the Uterin Blood. 3. Of the Milk aſſuged by the Infant, whence we may term it συντροφας. 4. Of the Contact (διὰ παφῆν) of the Lips of the Mouth, and Ambient Skin of the Body, whereby the Scorbutic μίασμα is transferred to the Child, by being Kiſſed or Hugged by the Parents, and lying by them in Bed. But becauſe you ſhall not only be ſatisfied with my Information, give me leave to acquaint you what *Platerus*, the Learned Profeſſor of the fore-going Century at *Baſil*, reports of it, *pag.* 355. This Malignant Diſeaſe when it firſt diſcovered it ſelf

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in the Maritime *Nothern* parts, and proved Contagious, gave me no ſmall ſuſp tion, *That from remote Countries, which theſe People that croſs the Seas do in our Age diſcover, almoſt to the extream Borders of the Earth, and where poſſibly it is familiar; it was Tranſported firſt to theſe places that are near the Sea by Seamen.*

§. 2. Definitions or Deſcriptions are rarely ſo perfectly made in the Art of Phyſick, as to reſcind the occaſion of all Objections from Caillers, and therefore to prævent that Risk, I will be Opponent to my ſelf, in forming ſeveral Doubts and Objections againſt the Definition by me propoſed in this Chapter. Firſt, I offer this Quæſtion, Whether the *Scorvey* be a Manifeſt or Occult Diſeaſe, that is as *Fernelius* doth term it, *a Morbus totius ſubſtantiæ?* Some that Argue from Authorities, probably may offer the Sentiments of *Platerus*, *Sennertus*, *Steeghius*, and others. The firſt of theſe aſſerts the *Scorvey* to be an Occult Malignant, and abſolutely Venomous diſeaſe. The ſecond gives us a definition

tion (which as I ſaid before, the *Scorvey* is not capable of, as having no eſſential difference) in theſe terms. *The Scorvey is an Evil and Occult quality, or diſpoſition, impreſſed on the whole Body, but chiefly on the Bowels, that are deſtined for Nutrition, ariſing from a groſs Melancholy Humour, that's Ichorous or Serous, and corrupted in a peculiar manner*, or, ſaith he, *It is a certain Evil Nutrition, or Ill Habit of the Body*, &c. The laſt expreſſes it, to be a Moiſt diſtemper of the Spleen, occaſioned through the putrefaction of the thick Humour, which the Spleen delights in. The formoſt Opinion may eaſily be Refelled, ſince the Symptoms of the *Scorvey* may be plainly deduced from Cauſes, that are obvious and manifeſt. 2. All Venoms do immediately aſſaſſinate the Heart, diſſolve the *Vinculum vitæ*, and have this Qualification appropriated to them, that they are only to be Expelled by their Antidotes; but common Obſervation tells us, that the *Scorvey* moves gradually, is more ordinarily ſeated in the *Spleen*, or *Stomach*, than the *Heart*, and is Cured by Medicines,

dicines, that Operate by a Manifeſt, and not Occult quality, namely ſuch as are of a ſubtil igneous and colliquative faculty, as *Scorvey-graſs*, *Watercreſſes*, &c. The ſecond Definition ſavours much of the firſt, and renders it *a morbus totius ſubſtantiæ*, which that it is not, appears from the former Anſwer. *Steeghius* will have it a Moiſt diſeaſe, and aſſerts Melancholly a Drying humour, the continent cauſe; which however *per accidens* may produce a Moiſt diſtemper; but waving that, it is moſt certain, that in many Scorbutics the *Spleen* is not affected, and therefore cannot be deſcribed to be a Moiſt diſtemper of the *Spleen*.

§. 3. The next Quæry is, Whether is the *Scorvey* a *Similar*, or *Diſſimilar* Diſeaſe? Some that do allow the *Scorvey* a Diſeaſe of very ancient date, adjudge it a *Diſſimilar* diſeaſe, and in particular a Diſeaſe of Magnitude, *viz.* A great Spleen. *Pet. Foreſtus* aſſerts it a Compounded diſeaſe, and not Simple. The fitteſt anſwer to this in ſhort is, That primarily it is

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a *Similar*, and ſecundarily a *Diſſimilar* Diſeaſe.

§. 4. The third Quæſtion is, Which is the part Principally and Originally affected in the *Scorvey? Horſtius* ſtates the Spleen the part affected, others the Stomach only, and many the Stomach, Spleen, and Liver. If in ſome it be obſervable (as it is) they are troubled with luxuriant glowing Gums, and vacillation of their Teeth, without the concomitance of other Symptoms, in all probability it's the Stomach is the only part affected, there appearing no Sign or Symptom of any other entrail, that's affected. On the other hand, if no other Symptoms Emerge, beſides blewiſh Scorbutic Puſtles or Blotches, it may rationally be concluded, no other part is affected but the Spleen. It has been alſo obſerved by *Foreſtus*, and *Reuſnerus*, that the Spleen and other Entrails have not appeared much affected in ſome deceaſed Scorbutics, but the Liver chiefly, wherein was obſerved a great diſcoloration, and diſſolved unity of its ſubſtance. Whence we may deduce, that

that a *Scorvey* that's contracted by a *Salin Diæt*, the Stomach is originally and primarily affected, in that which is occaſioned through a *Salin Air* the Spleen, but after ſome continuance they become all parts æqually affected.

CHAP. XV.

Of the Differences of the *Scorvey*.

1. *A diſtinction taken from the Growth of the* Scorvey. 2. *From the manner of its Origination.* 3. *From the parts primarily affected.* 4. *From the Internal Cauſe.* 5. *From the Concentration of Symptoms.* 6. *From Prædominant Symptoms.* 7. *From the Occultation of Symptoms.* 8. *From its manner.* 9. *From the place, where it reigneth.* 10. *That theſe Diſtinctions are of great Uſe.*

§. 1. SUbjects that conſiſt of a mutable Nature require exact diſtinctions, which are to be deſumed, 1. From

1. From its growth, whence the *Scorvey* is called either *Præliminary*, *Liminary*, *Recent*, *Inveterate* and *Terminative*. A *Præliminary Scorvey*, I muſt confeſs, is very Improperly named a *Scorvey*; for being abſolutely conſidered in it ſelf is no *Scorvey*, but in a Relative and Subſecutive way I have Impoſed that Denomination only *Doctrinæ gratia*, to expreſs the root whence a commencing *Scorvey* doth ſpring and bud forth. This being præmiſed, I intend thoſe Ebullitions comprehended in the Obſervations that are Delineated in *Chap.* 11. for a *Præliminary Scorvey*, becauſe they præcede, and are generally *Præliminary* to a *Scorvey*. A *Liminary Scorvey* is that, which upon the quietation and ſubſidence of a *Præliminary* Ebullition buds forth. A *Recent Scorvey* is a confirmed *Scorvey*, but of no long ſtanding, and is anſwerable to the augment of the Diſtemper. An *Inveterate Scorvey* is a Diſtemper of a long continuance, and alludes to the *ſtate* of the *Diſeaſe*. A *Terminative Scorvey* is that *Diſeaſe* whereinto it doth paſs, and puts a termination to the *Diſtemper* and Life alſo

ſo; as a Scorbutic *Dropſie*, or Conſumption, *&c.* for it is ſuch a ſort of *Diſeaſe* the *Scorvey* doth at length terminate into, and ſo prove Mortal.

§. 2. From the manner of its Origination, in which reſpect it's either *Hæreditary* and Connate, when it's derived from the Scorbutic indiſpoſition of the Parents; or *Adventitious*, which is engendred ſome time after one is Born; and this is twofold, for it's either *Contagiouſly adventitious*, when gotten by Infection, or *Non-naturally Adventitious*, that is, when contracted through fault of ſome of the *Non-naturals*, as Salt diæt, Salin Air, Melancholy, want of Stirring, *&c.*

§. 3. From the parts Primarily and Principally affected, this *Diſeaſe* is termed an *Hepatic*, *Splenetic*, or a *Stomachic Scorvey*.

§. 4. From the Internal Cauſe, it's ſtiled either an *Acid*, *Lixivial*, or *Saponary Scorvey*.

§. 5. From the parts where the Symp-

Symptoms do concentrate and clot together, it derives the name of *Mouth-scorvey*, *Leg-scorvey*, or *Joynt-scorvey*; By the way I must give the Reader this Advertisment, That in a *Mouth-scorvey* the Symptoms are not so limited, or circumscribed, as to extravague no farther than the Mouth, but that some slight superficial Symptoms of the other kinds are also attendant, *viz.* A great weakness or feebleness of the Knees, spots about the Legs and Arms, Blotches in several parts, especially in or near the Groin, Ambulative glancing pains about the extreme parts, *&c.* So likewise in a *Leg-scorvey* some Symptoms of the Mouth and other parts are remaining. So that this distinction doth chiefly take its denomination from the greater number of urgent and remarkable Symptoms, that haunt the Mouth, Legs, or Joynts.

§. 6. From some prædominating Symptoms the *Scorvey* oft takes a particular Nomenclature; from an *Asthma* it's called an *Asthmatick Scorvey*; upon the same account it's stiled a

Rheumatic Scorvey, a *Torminous* or *Griping Scorvey*, a *Diarrhœous Scorvey*, an *Emetic* or *Vomiting Scorvey*, a *Flatuous Hypochondriac Scorvey*, a *Cutaneous Scorvey*, *viz.* of Spots, Puſtles, Blotches and Pimples, an *Ulcerous Scorvey*, a *Dolorous Scorvey*, *&c.*

§. 7. From the occultation or hiddemeſs of the Symptoms within the Body, it may be called an inward, hidden, or *Latent Scorvey*, which doth not manifeſt it ſelf in Symptoms that are external and evident, as Spots, Mouth or Leg *Symptoms*; but without the Concomitance of theſe, there is onely obſervable a Neutrality in point of Health, a defection of Appetite, ſome ſmall oppreſſion of the Breaſt, a diminution of ones uſual inclination to ſtirring, and ſome little hebetude or dullneſs of the Senſes, *&c.* or a *Manifeſt Scorvey*, appearing in external Symptoms.

§. 8. From its manner, it may be termed a *Mild* or *Malignant Scorvey*. From the Countrey or place where it reigneth, its called an *Engliſh*, or *Dutch*

Scor-

Scorvey; also a *Sea*, or *Land Scorvey*.

§. 9. It is not to increase the bulk of this Tract, but the great use that may be made of these differences and distinctions, as you will in their proper places observe, hath been the occasion of inserting them in this Chapter; the truth hereof will manifest it self, when you come to understand, that many patients are frustrated of their hopes of Cure, and some præcipitated to their Tomb, thorow the neglect and error in making a right distinction of their Disease, its degrees, and its various mutations, which sometimes is to a contrary distemper; and it is here chiefly, that I prætend to be particular, whereas the Vulgar Hackney Physician neglecting the Journal of progressions in Maladies, followeth onely the common Tract of Method and Remedies, and therefore frequently misseth his scope of restitution of health.

CHAP. XVI.

Of the Diagnoſtick Signs of the *SCORVEY.*

1. *The Signs of a* Præliminary Scorvey. 2. *Signs of a* Liminary Scorvey. 3. *Signs of a* Recent Scorvey. 4. *Signs of an* Inveterate Scorvey. 5. *Signs of a* Terminatory Scorvey. 6. *Signs of an* Hepatic Scorvey. 7. *Signs of a* Stomachic Scorvey. 8. *Marks of a* Splenetic Scorvey. 9. *Notes of diſtinction of an* Acid, Lixivial, *and* Saponary Scorvey. 10. *Directions to diſcover a* Latent Scorvey. 11. *The difference between an* Engliſh *and* Dutch Scorvey.

§. 1. A *Præliminary Scorvey* is not onely diſcovered by præceding Scorbutic Procatarctics, but alſo by the Pulſe and Urin, the former beating not ſo unæqual, as in continual putrid Fevors; neither is the heat ſo pungent, but glowing only, that

that is obtuse and fuliginous: the latter is commonly of a higher colour, than in an ordinary continual Fevor it can arrive to in so short a space of time, and very abounding in a gross ruddy sediment. Moreover the ebullition of Blood is of no long continuation, but in a few dayes is apt to fall and subside, unless provoked by the error of the Physician or Patient.

§. 2. A *Liminary Scorvey* some do decipher by these four *Pathognomonic* Signs, 1. A livid and deadish Complexion of the Face. 2. An itching deep redness of the Gums. 3. An Oppression of the Brest and Respiration, also of the Sides about the Bastard Ribs. 4. A Painful Feebleness of the Knees. These we grant to be common Signs in an evident commencing *Scorvey*, but not *Pathognomonic*, because they do not alwayes attend every Scorbutique; for I have met with some, that without those Symptoms before-mentioned, have been disfigured with livid Scorbutique Spots, likewise some whose Mouth and ad-

jacent parts were affected, without the leaſt ſenſe of feebleneſs in their Knees, or Oppreſſion of Reſpiration; Laſtly, Thoſe that are moleſted with a *Latent Scorvey*, are exempted from ſeveral of the prænumerated Signs.

To theſe common Diagnoſticks muſt be added a fifth, A great heavineſs of all the Body, and lumpiſhneſs or dulneſs of the internal and external Senſes. 6. The Appetite in ſome is obtuſed, in others it's ſo much ſharpned, that they are apt to covet more than they can digeſt. 7. A Βραδυπεψία, or the digeſtion of the Stomach ſomewhat impaired of its wonted vigor; as appears by a ſmall heavineſs and drowſineſs after Meat, and accompanied with Belchings and Winds murmuring downwards. 8. The Urin is leſs tranſparent, and grown a little turbid and drabby. 9. All theſe may be confirmed, by conſidering the *Procatarctic* Cauſes, *viz.* Whether they have lived in a Scorbutic Air, or fed upon Salt Diæt, or by reaſon of Impriſonment, or other voluntary Confinement, have neglected all manner of Exerciſe, or whether they

have

have been under some occasional Melancholy, or whether some usual evacuation, as the *Menstrua*, Hæmorrhage at the Nose, or Hæmorrhoids, Issues in the Arm, Neck, or Leg, or in any other part, be not suppressed. Or whether they are not *Splenetic* or Hypochondriac; or have lately been troubled with a Quartan Ague: Or whether their Parents were not subjected to the *Scorvey*, whence it might be æsteemed Hæreditary; or lastly, whether they do not daily converse with Scorbutiques, whereby it might become Contagious. Consider also the *Juvantia*, and *Nocentia*, what things help them, and what hurt them.

§. 3. The signs of a *Recent*, or *Augmented Scorvey*, are, 1. A spongy swelling of the Gums, which upon the least pressure, or biting a piece of Bread, are apt to exudate Blood. 2. A great stink of the Mouth. 3. Looseness of the Teeth. 4. Spots like Fleabites, and Freckles dispersed over the whole Field of the Body, but thickest about the Mouth, Temples, Arms,

Breaſt, and Knees; ſome are Red, others Yellow, Grayiſh, Duskiſh, Purpre, or Blackiſh, eaſily diſappearing in one place, and emerging again in another. 5. A deeper tranſmutation of the Complexion into an ill habit of Body, the looks ſeeming Yellowiſh, Greeniſh, deep Red, Sallow or Swartiſh. 6. The Oppreſſion of the Lungs, Breaſt and Sides is conſiderably increaſed, inſomuch that when they ſtir or riſe up, they are ſubject to faint and gaſp for Breath, which continueth ſo long, until they ſit, or lay themſelves down again. 7. Puffing up of the Stomach particularly after Victuals, and Tenſion of the Belly. 8. The weakneſs of their Knees and Ancles, is likewiſe much augmented, which renders them far more Impotent in going, or moving. 9. It's obſerved, that in many the whole train of Symptoms is apt to be intended or increaſed every fourth day, in ſome every third day, that is every other day (for Phyſicians do reckon incluſive) in others at certain ſeaſons every day. 10. In this degree they are uſually Coſtive. And 11. troubled with

with Pain and Stiches all over. 12. Suppreſſion of the *Menſtrua* in Women, in ſtead whereof, they are moleſted with a ſort of painful Whites.

§. 4. In an *Inveterate Scorvey*, theſe Præcited Symptoms and Signs, as they have taken deeper Root, ſo have alſo aſſumed a greater Intenſion and ſtubbornneſs; for in this degree the Patient is deprived of all power of Moving or Stirring; the Sinews, Tendons, and Muſcles, are apt to be ſtiff and contracted. He is moleſted with Vagrant, Ambulative, Diſtending, Creeping, Vellicating, or Lancinating Pains of ſeveral parts of the Body; bruiſing Oſſifragous (ὀστοκόπος) pains in the midway of a Limb between the Joynts, torturing moſt in the Night; Red, Yellow, Purpre, or Blackiſh ſplotches, eſpecially about the Knees, which ſometimes being concomitated with a Tumor, and extending thence downwards as far as the Foot, and meeting altogether in one tumefied Splotch render the Leg to ones view, as it were all over Leprous; a fræquent reeurring Melan-

lancholy paſſion, Hiccoch, choaking Coughs, and copious Salivations, violent Palpitations of the Heart, deep Swoundings ſtrenuous Vomitings, tearing Iliack pains, which a famous Author names a *Dyſenteria Incruenta*, but how properly, let others judge. The Pulſe variable, inæqual in motion and ſtrength, moſt times low and thick, and ſometimes vermicular; though at other times ſtrong and violent, that is Thumping. The Urin is inconſtant, oft turbid and whitiſh, ſometimes thick and reddiſh, ſeldom thin and pale; deep Red, or purpre Tumor and Puſtles, ſcattering over the Surface, Redneſs of Face, Tumors and Impoſtumes of all kinds, according to the Temperament of the Grieved. The foreſaid Splotches oft do peel off in Scales of ſeveral colours and figures, or exchange into *Eryſipelas's*, theſe and likewiſe Botches do paſs into Ulcers, ſome of which are ſuperficial, profound, ſimple, inflamed, callous, dry, ſanious, purulent, *&c.* In ſome few the Veins under the Tongue, and about the inſide of the lower Lips are varicious; ſome

alſo

also they are debilitated by great Sweats, which they are exposed to. In an *Inveterate Scorvey*, they are oft Loose and subject to fall into violent Fluxes of the Belly, or *Diarrhæa's*, and *Lienteries*, which if continuing, pass into a *Terminatory Distemper*. The tormenting pain in the Back, called *Lumbago*, and resembling the pain that's occasioned by the Stone of the Kidneys, is very brisk in this degree, as also spurious Pleuritick pains.

§. 5. The Signatures and Symptoms of a *Terminative Scorvey* (which is the extream degree, whereinto the forgoing passeth either *per* μετάστασιν, or ἐπιγενέσιν, are, 1. A Scorbutic Phagedænic, cancerous or gangrænous Ulcers, and *Caries* or Rottenness of the Bones. 2. A Scorbutic Fistul, which may happen to several parts. 3. A Scorbutic Dropsie, which commonly proves an *Ascites*, though I have also remarqued the *Scorvey* hath made its *Exit*, through an *Anasarca*, and *Tympanie*. 4. A Scorbutic *Atrophy* and *Marasmus*. 5. A continual very fluent

ent and drivelling Salivation, which one in *Throgmorton-ſtreet* hath laboured under ſeveral years, and will certainly conduct him to his Grave. 6. Scorbutic Convulſions, and *Epilepſies*. 7. Fræquent *Syncopees*. 8. Scorbutic Palſie, and Tremors. 9. Scorbutick *Apoplexie*. 10. Scorbutic Quartan, Tertian, Erratic, Hectick, and continual Malignant Fevers. 11. Scorbutic *Orthopnæa*, and Periodical Coughs, and *Aſthma's*. 11. Scorbuticks *Phthiſis*, or Pulmonique Ulcerous Conſumption. 13. A continual Flux of the Belly, as a *Dyſentery*, or *Lientery*.

§. 6. The Signs of an *Hepatic Scorvey*, are, 1. Deep, Red, or Yellowiſh prurient ſanguinolent Gums. 2. Red, Yellowiſh, or Cineritious Spots and Splotches about ſeveral parts of the Body, eſpecially about the Breaſt, Neck, and Face, alſo Puſtles and Bumps of the like tincture in the ſame places, that prove ſomewhat Incommodious by a Pruriginous itching quality, alſo Eryſipela's, Shingles, and Ring-worms; ſome of thoſe Spots and Splotches of

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an Aſh and Citrin colour I have obſerved to be indued with a faculty ſo corroding, that their ſeat hath been deep in the Skin, much below the Surface. 3. The Complexion of the whole habit of Body, tending to a Cineritious or Subcitrine defœdation, and in ſome to a Verdure. 4. A Stich or pricking, and in many a weighty depreſſing pain in the right ſide, under the ſhort Ribs, particularly upon a deep capriſant Reſpiration. 5. A ſoreneſs, pain and oppreſſion in the right *Hypochondre*, when lying on the left ſide. 6. Difficulty of Reſpiration, the Urin and Pulſe uncertain, nidorulent Belchings, beſides ſeveral other ſigns common to a *Liminary*, and *Recent Scorvey*.

§. 7. A *Stomachic Scorvey* is diſcerned, 1. By a pale Tallow habit of Body, white Spots like *Cacatrix's*, much lighter than the Skin, pale Puſtles and Oedematous Tubercles, chiefly about the Stomach, Breaſt, Neck and Groin. 2. Oedematous Legs. 3. Laxe fungous pale ichorous Gums. 4. Fluent ſpitting. 5. Inflation

tion of the Stomach, heavy Digeſtion, ſour Belchings, and diſcharging of Wind both ways. 6. Diſtenſion of the Belly; whereunto add ſome of the common ſigns.

§. 8. The marks of a *Splenetic Scorvey* are, 1. Livid luxuriant Gums, that are apt to be Fiſſured, Ulcered, grow putrid and ſtink, and at length through a Phagedænic Sanies are apt to be corroded away. 2. Blew livid Spots and Splotches, which by Deterioration turn black, and oft-times Ulcerate, and commonly haunt the left ſide of the Body more than the right. 3. Sour Belchings, Winds Murmuring and Fluctuating about the Guts between the Hypochonders, Stitches, Pricking, or Gravitating pains in the left ſide under the ſpurious Ribs, Melancholy paſſions, Palpitations, ſudden Faintneſſes, Vertigo's, Inflations and pains of the Stomach, which ſometimes reach as far as the Back, in manner, imitating thoſe of the *S*tone in the Kidneys, alſo Vomitings, which in ſome is ſo continuous and permanent, that they ſcarce ever Eat or Drink

Drink without returning ſome part of it immediately, or after a ſhort interval; and notwithſtanding are obliged to Eat and Drink often, to ſuppreſs the gnawing pain of their *Stomach*, which is occaſioned by a putrid *Acid Serum*, vellicating the Tunics of the *Stomach*, lying on the left ſide proves eaſieſt to them, a livid blearing up of the under Eye-lids; a Hæmorrhage of the left Noſtril, and many other Characters expreſſed in the general *Semeiotic*.

§. 9. An *Acid Scorvey* not differing from a *Stomachic*, a *Liminary*, and *Recent Scorvey*; a *Lixivial Scorvey* being oft comprehended under an *Hepatic*, and a *Saponary* under an *Inveterate* and *Terminatory Scorvey* (which Identifications are only to be underſtood κατὰ τὸ πολὺ) are eaſily known by thoſe Notes I have already præmiſed, whereunto may be added for confirmation, the moſt certain ſign deſumed a *Juvantibus* and *Nocentibus*, *viz.* an *Acid Scorvey* yields to Alcalious Remedies, a *Lixivial* to a Scorbutic *Acid*, a *Saponary* to a mixt Remedy

medy. The Mouth, Leg, and Joint-*Scorvey*, needs no further Illuſtration for diſcovery, than what I have ſet down in their particular Chapters.

§. 10. A *Latent Scorvey* requires Experience and Induſtry in the Phyſician, who muſt take his Dimenſions of Conjecture, 1. From the Air wherein the Patient Liveth. 2. Diæt. 3. From ſuch Symptoms, which cannot ſo Directly or Relatively be applied to any particular Diſeaſe beſides this, as a Recurrent Laſſitude, and ſloath of Moving, dulneſs of the Senſes, difficulty of Breath, peſanture of Body, inflation of the Stomach, heavineſs and dulneſs after Meat, winds about the Guts, Coughs and Catarrhs fræquently returning, beſides ſeveral other Neutral ſymptoms, which do neither determine a man abſolutely Well or Ill. Laſtly, Obſerve that where two ſuch Non-naturals, as a *Salin Air* and *Diæt*, have ſo abſolute an Influence on Bodies, ſcarce any Diſeaſe can ſeize on a man, which doth not partake of a *Scorbutic Tincture*, neither can it be well Cured, without ab-

abstracting a Coindication from the *Scorvey*.

§. 11. A *Dutch Scorvey* in Symptoms is very different from the *English*; they using generally a Diæt more Excrementitious than ours (as gross thick Beer, Roots, Cabbage, Salats, Milk, Roak-Flesh, Pickle-Herring, and other Fish) are more Exposed to all the supposed *Pathognomonics* and *Syndrome* of a *Mouth* and *Leg-Scorvey*, than we, who feed commonly on Meats of more Nutriture and less Excrementitious, and therefore are not so much Exposed to that general Catalogue of *Scorbutic Symptoms*, but most commonly to those that are Latent, (and Recited in the præceding Paragraphs) and some others more evident, as Spots, Blotches, Pustles, Cutambulous Pains, Griping of the Guts, Vomiting and Gnawing Pains of the Stomach, Hypochondriac Winds and Vapours, Catarrhs, Coughs, also to those of the *Joint-Scorvey*.

CHAP. XVII.

Of the Cauſes of a *Terminatory-Scorvey.*

1. *The Cauſe of a Scorbutic Dropſie.*
2. *That the Heart is the part primarily affected in a* Convulſion, Palſie, *and* Apoplexy.

§. 1. THis Chapter I have reſerved for the Ætiology of a *Terminatory Scorvey*, in whoſe train the *Dropſie* being placed in the Front, ſhall Commence my Diſcourſe on that. The ill ſucceſs that attends the Vulgar Cure of an *Aſcites*, or Water-Dropſie, by hot drying and Lixivial Medicines, as *Elycampane*, *Orris Roots*, *Cyperus*, *Calamus Aromaticus*, *Juniper*, *Salt of Worm-wood*, *Centaury*, and a Hundred more, is a plain Convictive, that the Cauſe is moſt erroneouſly aſſumed, to be a Refrigeration of the Liver, and it's Obſtruction through Phlegmatic Humors. But on the other

ther hand, when we shall take into Consideration, that a *Scorbutic Dropsie* is easily, and certainly Cured, if attempted in time by mixt Remedies, (whereof *Spirit of Tartar*, of *Salt Marine*, single or composite, and such like *Acids*, are the *Basis*) besides the Symptoms attendant signifying a Lixivial Original, is to me a clear Demonstration, that it proceeds from a Calcination of Choler in the Liver, which thence resulting into an *Alcalious Salt*, dissolves *per Deliquium*, and so becomes Qualified to Penetrate into the most intime pores of its *Parenchyma*, where it subverts its Temperament, and through its Absorbitive Exhausting faculty parches its substance, and Indues it with a *Salin* dissolving Quality, whereby the whole Mass of *Chymus* is daily dissolved into a *Serum*. The Universal Current of Blood deriving hence an Absorbing and Exiccating faculty doth about the Stomachic Vessels so exsuge the Mouth of the Stomach, that Hydropics are continually obliged to moisten it, by Ingurgitating large measures of Drink, whence the *Latex seri* doth so immen-

ſurably accreſce, that through its intumeſcence generally ſome Veſſel or other about the *Abdomen*, and particularly about the *Meſentery*, doth burſt, or at ſometimes through the Acrimonious quality of the *Salin Serum* the ſaid Veſſel is corroded through, among Phyſicians termed, a διάβρωσις; for it's not poſſible, ſo great a quantity of Water, as is ſometimes collected in the capacity of he *Abdomen*, ſhould ſweat through the pores (*per διαπέδησιν.*) But this is certain, that oft in a Commencing *Dropſie*, or one that's *Recent*, and of no large Circumſcription, the *Serum* may exſtil through the Oſculations of the Veſſels (*per ἀναστόμωσιν*) and it is this kind of *Dropſie* is capable of an expedite Cure, whereas the other that depends on a διάῤῥηξις, is for the greater part Incurable; for ſuppoſe, that the Extravaſate *Serum* is all, or in a great meaſure drawn off by Hydragogous Purgatives, ſtill the conſolidation of the corroded Veſſels is not only difficult of its own nature, but in a manner impoſſible, becauſe of the daily præterfluxe and appulſe of the corroſive

ſive *Salin Serum*, to the diſcontinuated Orifices of the ſaid Veſſels; add hereunto the ineptitude of the ſalin conſtitution of the Liver and corroding *Alcalious Blood* to be ſweetned, and reduced to their priſtin Temperament. By the way, let me obſerve the Error of *Hofman* in his Inſtitutes, attributing the cauſality of a *Dropſie*, to a Diminuted or Aboliſht faculty of the Kidneys, not attracting the *Serum*, which is manifeſt, doth happen *per accidens*; becauſe the *Serum* having taken another Channel, is deviated from its uſual appulſe to the *Emulgents*. But ſince I find my ſelf for the prætent Imbarqued on this Subject, the Affinity of the Matter perſwades me to Expatiate into ſome other ſorts of *Dropſies*, that are not Scorbutique, namely ſuch, as ſometimes do happen to Women after their lying In, alſo to ſome upon a liberal draught of cold Water, and to others upon the continuance of a *Skir* of the Spleen or Liver, or upon a tædious haraſſing of a *Tertian* or *Quartan*. In the firſt caſe there being a vaſt Coacervation of Humours in the *Hypogaſtric* Veſſels,

by reaſon of the retention of the *Menſtrua*, during the whole time of Child-bearing, which upon the pains of Labour attracting a greater Conflux thither, and the great heat of the adjacent parts rarefying the ſaid Humours, occaſion ſome of the *Lymphatic* Veſſels to burſt, whereunto being concomitant a copious Hæmorrhage of the *Matrix*, cauſeth a vaſt expenſe of Spirits, whereby the Bowels do all ſuffer a ſubverſion of their temperature, that afterwards proves an occaſion of engendring crude aqueous Humours; theſe upon their circulating reverſions diſtilling out of the foreſaid burſted Veſſel into the capacity of the *Abdomen*, produce a *Dropſie*. The like may happen upon a draught of cold Water, violently repelling the Humours to the Veſſels of the *Abdomen*, which partly through the violence of the Impulſe, and partly through their being crouded together, occaſion a Rupture of ſome of the Lymphæducts. Here I muſt Animadvert further, how ridiculous a conceit it is of moſt Phyſicians, importing the ſaid *Dropſie* to be cauſed by

by the ſudden extinction of the innate or influent heat of the Liver, which afterwards doth engender Aqueous Blood; as if that entrail ſhould be left ſo naked, or be ſo meanly fortified by Nature, as not to be capable, to reſiſt the quality of cold Water at ſo great a diſtance; for certainly the cold is much broke and obtuſed by the Stomach, and other parts, before it can arrive to the Liver; or as if that cold quality, which is impreſſed upon the Liver, could not be eaſily remedied by hot Medicines: But what do I inſiſt ſo long upon theſe Trifles, ſince the whole Body of Phyſick is filled with them? How a *Dropſie* is engendred upon a *Skir*, *Tertian*, or *Quartan*, you may be inform'd from the Præmiſes, wherefore I will return to Confirm the cauſe of a *Scorbutic Dropſie* to be an Alcaliſed Blood, by the Calcination or Reverberation of the *Bilis*, which the Liver is alwayes furniſht with throughout all its parts, to ſubtiliate and depurate the refluent Blood, which being performed, the ſuperfluous part of the ſaid *Bilis* is abandoned to the *Cyſtis*. The

Symptoms concomitant and ſupervenient do ſtrongly Corroborate that Sentiment. 1. The Inſatiable Drought, the Atrophy of the Superior parts, the Lixivial ruddy Urin, torrid Tawny Complexion of Body, cancerous depaſcent Ulcers of the Legs, the ſalt Lixivial taſte of the *Serum*, when Tapt out *Per paracenteſin*; who but an inſipid *Medicaſter* can derive them from any other than an *Alcali*, or a reveberated *Bilis*?

§. 2. A *Convulſion*, *Palſie*, and *Apoplexy*, are the next particulars, that highly merit a ſerious deliberation, the more, becauſe they ordinarily prove ſo dangerous and terminative. In the conceipt of their part primarily affected, ſeat, and internal Cauſe, I have for ſeveral years with the Generality of my Profeſſion, attributing too much to the Dictates of Antiquity, ſloathfully erred, until that by a ſtricter ſcrutiny and obſervation in practice I had detected their true Fountain and Original, which I now propoſe to you. That the Heart is the chief ſeat, and part primarily and princi-

principally affected of the forementioned Diseases, appears 1. By the Pulsation of the Arteries, which before any *Convulsion*, *Palsie*, or *Apoplexy* doth seize on the Patient, doth very much vary from its Natural, in respect of Fortitude, Order, Frequency, Æquality of Motion, and many other specifications; which certainly expres the heart primarily and principally affected; confer further with the 6. *Arg.* 2. By the Respiration, whose variation from its ordinary Function in several respects, præceding those recited affections, also signifie the same to be the part principally affected. 3. From the consideration of the Office and Function of the Heart, which, besides the Vivification and Irradiation of the whole, is, to be the sole and *Primum Mobile* of Motion of the Animal Spirits; for through the Pulsation of the Arteries about the Brain, and more especially about the *Plexus Choroides*, it causes Efforts, *Impetus*, and impulsive motions on the Animal Spirits; so that it is from those Impulses these receive their energy and vigor, and therefore consequently

ly the Heart being affected, thoſe *Impulſes* muſt alſo be depravated or diminiſht. 4. If at any time thoſe Symptoms are abated or removed, it is by means of Cordials, which here for diſtinction, and the ſcope they are intended for (though improperly) may be termed Cephalic-Cordials, *Cephalico-Cardiaca*, as *Spirit of Caſtor*, *Amber*, *Roſemary*, *Pyony*, &c. Theſe undoubtedly are nothing more than Cordials, and rectifying the Blood, comforting the Vital Balſam and Spirits of the Heart, and reducing them to Ordination, æquality of Motion and Vigour. From ordinary Cordials they differ in this only, that conſiſting of a more durable and compact *Sulphur* and Spirits, they continue their Operation longer, in comforting the Heart, and oppugning the *Salts* of the Blood, by reaſon of the Compactneſs and Craſſitude of their ſubſtance, whereas thoſe that are vulgarly termed Cordials, and intended only to comfort the Spirits by aſſimilation, conſiſt of a lighter, fuſive, and exhalable ſubſtance; as *Spirit of Wine*, *Treacle-water*, *Aqua Mi-*

Mirabilis, &c. 5. Observing, that in some Cases the foresaid Symptoms receive a considerable abatement and benefit from Phlebotomy, it is easily Demonstrable, that this is performed, by detracting some part of the burden, that oppressed the Heart, and its Pulsifique and Impulsive motions. 6. *Galen*, *lib.* 2. *de caus. puls. c.* 12. seems to intimate what is here asserted, in these words: *Pulsus convulsivus est, in quo ad utrumque terminum arteria tenditur, quem convulsio sequi solet.* So that a convulsive Pulse (which signifieth the Heart to be affected primarily) doth præcede a Convulsion, which following must be deemed a Symptom of the former. Touching the manner and difference of those three Symptoms, I conceive, that a *Convulsion* is occasioned by Irritation, a *Palsie* by Relaxation and Obtusion, and an *Apoplexy* by Dissolution. But to Illustrate it further; When the Arterial Blood consisting of an acrimonious pungitive Salt, and appelling to the lower part of the Brain (which is the most sensible, and neat the *Principium Nervorum*) is agitated smartly by

by the vibration of the Arteries or hard and violent pulſations (for in all Convulſions *Pulſus ſunt duri & tenſi*) thoſe ſubtiler particles of the Blood are adacted violently into the Pores of the tender parts of the Brain, which being thereby extremely diſcompoſed, do violently impel the ſaid pungitive Particles into the Nerves (or in ſome caſes only make a ſmart Impreſſion of their *Idea* on the Animal Spirits contained in the Nerves) and being protruded to the Tendons of the Muſcles, through their ſtimulating quality incite them to contract and diſtend themſelves, to be freed or diſcharged of thoſe aculeous Particles. Moreover, take notice, that the vulgar Explicatory of Convulſions, wherein the Nerves are declared to be primarily and chiefly convelled, which being continuated to the Muſcles, do likewiſe occaſion their being convelled, is greatly Erroneous; for only the Tendons are ſubject to Convulſions, they being the chief inſtrument of the *Motus Spontaneous*, and only ſubject to a *Motus Depravatus*, and *Violentus*, whereas the

the Nerves are not appointed to move or to be moved, but to convey the Spirits. Secondly, When a Nerve is punctured, or cut aſunder (as hath oft happened by the Indexterity of Surgeons in Phlebotomy wounding the Nerve in the Arm in ſtead of the Vein) it's only apt to be ſurprized with a very great pain, but never known to be convelled. Wherefore I would not have my Reader judge the Dictates of the Ancients to be Infallible, ſince beſides what is fore-mentioned, it's manifeſt in many of their Poſitions, which hitherto by this credulous Age are received for Truths: I ſhall only give you this Inſtance for Proof; The Cauſes of a *Cephalalgia*, or Head-Ache, is by them aſſerted to be Acrimonious, or diſtending Humors and Winds, corroding or diſtending the Membranes or *Meninges* of the Brain. Nothing is more falſe than this, or ſavours more of Ignorance in Anatomy; for neither of the *Meninges* are in the leaſt ſenſible, as may be obſerved by the Probe, wherewith touching the *Dura meninx*, though roughly, (when lying bare upon the uſe of the Trepan) is not in the leaſt perceived

ceived by the Patient. Secondly, Whence ſhould the ſenſe be derived, there being not any Nerve, or ſo much as a Nervous Fibre tranſmitted to it from the Brain. In *Summa*, in the Brain, Stomach, and Liver, though they are daily Diſſected and Examined by Phyſicians in their expired Patients, many particulars are paſſed by, that have not been diſcovered until very lately, which is to be attributed to their Negligence and Unskilfulneſs; for indeed now adayes, if a Phyſician hath but once or twice diſſected a Sheeps-head, or a Calves-pluck, he thinks himſelf ſufficiently qualified to Challenge the Title of an expert Anatomiſt; thus we ſee, that an expert Anatomiſt of this kind, obſerving that one of the jaw Muſcles of a Sheeps-head had two Bellies (whence its alſo called *Digaſtricus*) immediately concluded all Muſcles to be *Biventres*; an able Headpiece for an Anatomiſt.

A *Palſie* is an imperfect *Apoplexy*, or a *Levis Apoplexia*, and differ only *gradu*, *ſecundum magis & minus*, and therefore do eaſily paſs into one another,

ther, according to the Tenor of the *Doct. of Hipp.*

Galen 3. de loc. affect. 10. *further tells you, That where all the Nerves have at once lost their sense and motion, that affection is called an* Apoplexy, *but that which only happens to the right or left side is a* Palsie.

The causes in general are twofold, 1. A Material. And, 2. A Formal Cause. The former is a gross *Saponary Blood*, which through its thickness is rendred incapable of being so subtilized by the Brain, as to distil into the Nerves, and that part that is Insinuated into the Nerves, being too obtuse and gross, to receive the Impulsive motions and *Impetus*, prove unable to actuate or distend the Nerves and Fibres, and therefore move the Members very weakly, or not at all, whence I term it a Relaxation in opposition to the said distention. The Formal Cause is the pulsifique faculty of the Heart, which is rendred soft, slow, and dull, and therefore Incapable to exercise it's Impulsive motions. Moreover observe, that though the

Blood

Blood is Salin-Alcalious, it is not Acrimonious, becauſe it is obtuſed by a mixture of groſs Unctuous and Bituminous *Sulphur*, that obtuſes its Acrimony; for otherwiſe were it Acrimonious, and purely Lixivial, it would prove Vellicating and Dolorous, and conſequently Convulſive. The *Ætiology* of the other Terminatives may be eaſily deduced from the interſperſed Diſcourſes.

CHAP. XVIII.

Chronology of the Scorvey.

1. *In what place, and with what Concomitants the* Scorvey *firſt appeared, in what particulars its Symptoms increaſed.* 2. *A recital of ſeveral Primitive Authors that have wrote on the* Scorvey.

§. 1. TO whatever various Sentiments touching the firſt Riſe and Appearance of this Diſtemper, every particular Phyſicians Fancy

cy may lead him, I am certain by all the Indagation I could make among Physical Records, the name of *Scorvey* (what touching Identified Symptoms hath been discoursed among the Ancients, let that rest) is not mentioned in any Author prior to *Euritius Cordus*, by his *Botanology*, and *Olaus Magnus*, who in his *Hist. Gent. Sept.* relates, There was a certain Campane Disease, which did afflict those, that were Besieged. aud Closed in, and seemed to grow from eating of Salt Victuals, was increased through a cold Exhalation out of the Walls, and was called the *Scorboch.* But *Georg. Fabrit. Lib.* 2. *Annot.* in his History of the year 1486. saith, *This year was reigning a new and unheard of Disease in these Countries* (which were *Silesia*, *Bohemia*, and the parts adjacent) *which the Seamen of* Saxony, *called Den Scarbochk.* Whence I collect, this Disease had some few years before been Extant in *Saxony*, and *Denmark*, possibly in 1483, or 84. Moreover two things are observable, 1. That this Scorbutic Evil præsently after its first Origination, was more

fierce, and Malignant, than the enſuing Twenty or Thirty years; for the ſaid *Fabritius* in the account he gives of it, tells us, this Diſtemper tended immediately to Ulcers; which if not timely remedied, became Gangrænous, and Mortal. The Second is, That there was an Interval of ſome years, before it ſpreaded into Countries, that were leſs Northern; for *Balduinus Ronſæus*, who to me appears the firſt that wrote on the *Scorvey*, *è Profeſſo* in his Treatiſe *de Magnis Hippocratis lienibus, pliniique Stomacace*, or *Scelotyrbe, ſeu vulgo dicto Scorbuto*, printed at *Antwerp*, in the year 1564 doth expreſs this Diſeaſe, was but newly arrived among them, and was ſo ſtrange to them, that many ſcarce knew, what to make of it. *Guil. Lemnius*, a *Zelander*, wrote a Treatiſe on the ſame Subject a little while after. *Foreſtus* in his *Obſerv. Lib.* 22 *Obſ.* 20. Writes, that the *Scorvey*, was not only formerly unknown, but many that were troubled with it, Died of it; likewiſe that one *Dorpius*, Prieſt of *Lovain*, died of the ſaid Diſeaſe many years ſince, the *Lovain* Phy-

Physicians being extremely surprized at it, who had not yet determined any thing concerning it, being an Evil, that was yet new and unknown, and so was its Name, Essence, and much more the manner of Curing it.

Scorbutic Authors tell us, that *Westphalia* was pester'd with it next after *Denmark* and *Saxony*, in the year 1500. the next *Frizeland*, then *Flanders*, and *Brabant*, in 1556. where it was occasioned by eating of Rye, that was brought from *Prussia*, there being at that time a great scarcity of Wheat; afterwards *Holland*, and *Zeland*; in a manner, as if this Distemper had by Contagion crept from Country to Country. Many years it remained on that Coast, before we were sensible of it here in *England*; for there are many Physicians yet living, who in the former part of their Practice, had not so much as heard of the Name of this Disease, whereas within the last 20 or 30 years past, it's grown very familiar among us.

The next Author that wrote on the *Scorvey* after *Ronsæus*, was *Echtius*, whose *Epitome* of the *Scorvey* was

Printed a little after the ſaid *Ronſæus*, next to him was *Wierus*, *de Scorb.* printed in 1567. next *Salomon Albertus*, whoſe Hiſtory of the *Scorvey*, with the addition of a new Symptom then appearing, which was a contraction of the Cheeks, was publiſhed in 1594. *Hieron. Reuſnerus*, his *Exercit.* on the *Scorvey*, in 1600. *Severinus Eugalenus* his Book of the *Scorvey*, in 1604. *Langius* his two Epiſtles on the *Scorvey*, in 1607, or 8. *Horſtius* on the ſame Diſeaſe, in 1609. *Stubendorf* upon *Eugalen*, in 1614. *Dreyer*, *Brunner*, *Brucæus*, *Albinus*, *Smid*, *Sennert*, all Authors on the *Scorvey*, in 1622, 24, and 27. Beſides theſe ſeveral others have *Obiter* and Curſorily touched on this Diſeaſe, as *Bauhinus*, *Dodonæus*, *Agricola*, *Carrichter*, *Dryander*, *Mithobius*, *Foreſtus*, *Rolfink*, *Barbet*, and Twenty more.

CHAP.

CHAP. XIX.

Of the Præsages of the several Degrees and Kinds of *Scorvey*.

1. *The Prognostic of a* Præliminary Scorvey. 2. *Of a* Recent Scorvey: 3. *Of an* Hæreditary Scorvey. 4. *Of a* Contagious Scorvey. 5. *Of an* Endemic Scorvey. 6. *Of a* Stomachic, Hepatic, *and* Splenetic Scorvey. 7. *Of an* Acid, Lixivial, *and* Saponary Scorvey. 8. *Of an* Asthmatic, Rheumatic, Torminous, Emetic, *and* Diarrhæous Scorvey. 9. *Of a* Latent Scorvey. 10. *Of an* English Scorvey. 11. *Of a* Mild Scorvey. 12. *Of* Spots *and* Blotches. 13. *Of* Ulcers. 14. *Of* Spots *and* Blotches *of an Ash-colour*. 15. *Of a* Livid *Palat*. 16. *Of a* Scorbutic *Pulse*. 17. *Of an* Epiginomenal Scorvey. 18. *A Prognostick applicable to Children*. 19. *Of a* Reverting Scorvey. 20. *Of* Terminative Scorveys.

§. 1. THe fore-knowledge of the Danger, various Mutations, Facility, or Difficulty of Cure of a Diſtemper, is ſo neceſſary, that a Phyſician can by no means be thought accompliſht, that is not well inſtructed in that particular, for which reaſon I ſhall Congeſt what Obſervations others and my ſelf have made upon it, and recommend them to your reading.

A *Præliminary Scorvey*, if not well Diſtinguiſht, and rightly Cured, may either be Tranſitory into a dangerous Malignant continual Fever, or a *Liminary Scorvey*, either of which may be prævented by a very facil Cure.

§. 2. A *Recent Scorvey* being neglected for ſix or eight Months, either by not making uſe of any means at all, or at leaſt ſuch as are in effectual, paſſeth into an *Inveterate Scorvey*, that generally proves very ſtubborn to Remedies; being in ſome Cured by a long continued Courſe, in others only palliable, ſo that its fræquently returnable, either every Spring and Fall, or every

every Moon; in others it's absolutely Incurable.

§. 3. An *Hæreditary*, *Connate*, or *Syntrophous Scorvey*, is Mitigable, but not intirely Curable.

§. 4. A *Contagious Scorvey* being only *Liminary*, or *Recent*, yields easier to Remedies, than one that is *Non-naturally adventitious*.

§. 5. A Distemper contracted by a Salin Air is not so obstinate, as one engendred by Dyæt, provided the Patient takes the advantage of changing the Air.

§. 6. A *Splenetique Scorvey* is worse than an *Hepatic*, and that also is worse than a *Stomachic*.

§. 7. An *Acid Scorvey* is more corrigible than a *Lixivial*, and that more than a *Saponary*, which fræquently proves Incurable. The measures of a *Mouth*, *Leg*, and *Joynt Scorvey* in general, are very consonant to the last præceding distinction.

§. 8. An *Aſthmatic*, or *Syncopal Scorvey*, is attended with danger, and oft with a ſudden death; a *Rheumatic* is tædious, and oft ſurvened by a Fevor; a *Torminous* is ordinarily very deplorable, and an *Emetic* diſtemper is of æqual danger with the former, and oft proves fatal. *Diarrhæous* and *Lienteric Scorveys* are very Chronical, and fræquently Mortal. A *Flatuous Hypochondriac*, an *Ulcerous*, and a *Dolorous Scorvey* are very difficultly conquered, or if at any time Cured, are eaſily returnable.

§. 9. A *Latent Scorvey* is eaſily or difficultly Cured, according to the length of time ſince it hath invaded the Body, and according to the quality of the Symptoms, and parts affected. In general, a *Latent* Diſtemper doth more eaſily admit of Cure in the beginning, than a manifeſt one; but in the Augment or State is far more difficult than the other, becauſe there is no diſcharge of Scorbutic matter towards the Circumference, as in the other, and conſequently the Spirits muſt be more oppreſſed.

§. 10.

§. 8. An *Engliſh Scorvey* is univerſally milder, and leſs refractory than a *Dutch Scorvey.*

§. 11. A *Mild Scorvey* may continue or be protracted to ten, twenty, or thirty years; a *Malignant* one doth ſometimes terminate Life in two, ſix, or twelve Months, in ſome ſooner, in others later; ſome arrive to their periods gradually, that is by a gradual decay of Spirits, and contabeſcency of Body; others die ſuddenly, and poſſibly when they leaſt think of it.

§. 12. *Spots* and *Blotches*, the nearer they come to a black colour, the worſe they are, and if they burſt out into Ulcers, ſignifie a greater Malignity, and difficulty of Cure. It is obſervable, that in ſome before they Die, thoſe *Blotches* do diſappear by reverting into the Body, but ſoon after death appear again.

§. 13. *Ulcers* of the Legs are not eaſily chekt, but on the contrary if irritated, like Cancers indue a fiercer Nature, which frequently inclines to

to a Gangræne, and Mortification.

§. 14. *Spots* and *Blotches* of an Aſh colour, eſpecially if Corroding and Itching, in ſome are never Cured. Cutaneous Tumours if apt to retrocede and burſt out again, præſage a *Palſie*. A *Palſie* though Cured, leaveth a contraction of ſome of the Tendons, or a ſubjection to Convulſions behind it.

§. 15. In a *Mouth-Scorvey*, if the Palat and Throat turn Livid, that is Leadiſh, or Blackiſh, prognoſticates Death to be at the door.

§. 16. A weak *Pulſe*, and debility of Body in this Diſtemper are not alwayes dangerous, becauſe that former may be occaſioned by vapours and ſteems, and the latter by putrid *Acid Blood*. Neither are Convulſive Motions, that ſurvene Scorbutique Fevors, of an æqual danger with thoſe, that accompany other Diſtempers; for theſe ſoon ceaſe, and their cauſe being Acrimonious ſteems, are in a ſhort time diſſipated.

§. 17.

§. 17. A *Scorvey* ſucceeding a *Quartan Ague*, or a continual Malignant Fevor, proves for the greater part very Malignant, Obſtinate, and in ſome Incurable.

§. 18. Children and Boys are moſt incident to the Kings-Evil, and Joint-Evil, young Men to the vagrant Gout, and old Men to the fixt nodous Gout. Boys and Girls are not ſo much expoſed to the *Scorvey* as Men or Women; becauſe the Conſtitution of the former is not ſo Salin, as the latter, and therefore when at any time they are ſurprized with it, are eaſier Curable. Old Men if Scorbutique, carry their Diſtemper commonly along with them to their Grave. A *Mouth-Scorvey* is more familiar among the younger ſort, and a *Leg-Scorvey* among thoſe that are paſt thirty.

§. 19. A Body that hath been once Cured of the *Scorvey*, if attacked the ſecond, or third time, ſhall find the Cure to advance much more ſlowly than before.

Few Diſtempers of this kind are remedied without an exact Diæt, though

though never ſo ſlight, and if they be any thing *Inveterate*, or *Terminatory*, the beſt Medicines without a Diæt avail nothing.

§. 20. *Terminative Scorveys*, though Curable, require a long continuated ſtrict courſe of Medicines; ſome are abſolutely Incurable.

Theſe Prognoſtics are to be underſtood abſolutely conſidered, without the help of Remedies, which being præſcribed according to the Rules of Art, dexterouſly præpared, and Methodically applied, are ſufficiently impowred to fruſtrate the moſt of prædictions, alwayes that excepted, which implieth a Period determined by the Creator, whereunto this Trite Verſicle hath its Reference:

Contra vim mortis, non eſt Medicamen in hortis.

CHAP.

CHAP. XX.

Of Præſervatives againſt the *Scorvey*.

1. *Præcepts relating to the Air.* 2. *Rules of Diæt.* 3. *Præcepts referring to the reſt of the Non-naturals.*

§. 1. IT is not in a bare Speculation of the Nature, Cauſes, and Signs of Diſeaſes, the Art of Medicines doth Acquieſs, but like other practical Sciences and Arts, deſigns its Theorems for Practice; wherefore ſince I have ſufficiently laid down whatever appertaineth to the Theory of Scorbutique Infirmities, it's requiſite I ſhould now declare the Practique, which comprehends the *Prophylactique* and *Therapeutique*. The former being otherwiſe called the *Conſervative*, in this caſe directs the means whereby to præſerve a Healthy Body from the *Scorvey*, which conſiſt chiefly

ly in Rules, and præcepts of making uſe of the ſix *Non-naturals*.

§. 1. Make choice of a thin ſerene perflated In-Land Air, and therefore ſhun the Sea-coaſts, Bogs, Wateriſh, Stincking, and Cloſe places.

§. 2. Let your Diæt be chiefly upon freſh *Meats*, that are Nutritive, of eaſie digeſture, and not very Excrementitious; ſo that you muſt avoid all Victuals that are ſtale, ſtincking, ſalt, groſs, obſtructive, Excrementitious, and of hard digeſtion. Within the Verge of this Rule are meats, that have been kept too long, until they had acquired a *French Haugon*; likewiſe Pork, Brawn, and all ſorts of Hog-meat, as Black-puddens, Sauſiges, Beef, Ducks, Geeſe, Tripe, Flower-Puddens; moſt ſorts of fried Victuals, as Pancakes, Stakes, Eggs fried, Collops of Bacon, *&c.* *Moſt* ſorts of Fiſh, Salats, all Souced, and Pickled *Meats*, *&c.* Which are all Scorbutique. Let your Drink be clear, well fermented, freſh, ſweet, and temperate; not ſtale, or ſour, ill taſted,

tasted, thick and muddy, heating, or cooling. Thus much for the quality; for quantity you must be moderate, in respect both of Eating and Drinking. Let your times of Meals be seasonable, seven in the morning, twelve at Noon, and seven at Night in the Summer, and in the Winter one Hour later. Your Breakfast and Supper ought to be light, and moderate, but your Dinner somewhat more solid and plentiful. Particularly avoid Coffee, new raw Cider, Brandy, and Tobacco.

§. 3. Sleep moderately, use Exercise, but not violently, keep your Body in order; that is between Loose and Bound; shift your Linnen once or twice a Week, to prævent the stoppage of your Pores by the Condensation of Sweat, and sooty steems, that stick to your Shirt. What concerns the passions of the Mind, I will only recommend to you the Old præcept *Bene age & lætare*, Do well and be chearful; and so here let us end this Chapter.

CHAP.

CHAP. XXI.

Of the Therapeutique in the *Scorvey*.

1. *General Indications.* 2. *Indications taken from the Air, alſo from the quality of the Humours.* 3. *Indications abſtracted from the quanty of the Humours.*

THe *Therapeutique* or Curative performs its part, by directing *M*ethodically Remedies, contained in the *Pharmaceutique* and *Chirurgique.*

§. 1. The *M*ethodical Directions do flow from the Indications, which are taken from two general Heads, *viz.* 1. From the Strength of the Body. And, 2. From the affections againſt Nature; from both which likewiſe Coindications and Counter-indications are deſumed. Among the Affections againſt Nature, the Cauſes of a Diſeaſe, and in our Caſe of the

Scor-

Scorvey are the principal *Indicants*, next are the urgent Symptoms, and laſtly the Diſeaſe it ſelf.

§. 2. The *Salin Air* among the *Procatarctics* being the Ground and Original efficient, indicates its change into a better, which is ſuch, as hath been deſcribed in the firſt Rule of the præceding Chapter; whoſe ſecond Canon doth likewiſe contain Directions, that anſwers the Indication, deſumed from a Scorbutique Diæt, another grand Efficient; theſe two together with the reſt of the Non-naturals being provided againſt in the ſame Chapter, we are to apply our ſelves to thoſe Indications, which the Internal antecedent Cauſes do point at, *viz.* 1. *A Salin putrid, or groſs fuliginous coagulated acid Blood, indicates Remedies, virtuated to dulcify, attenuate, depurate the Humours of thoſe ſooty particles, and volatilize the ſalin parts, that are too much fixed.* 2. *A Salin lixivial thick chyme requires Remedies, that by obtuſing the fiery alcalious Salts, may reduce it to an unctuous ſweetneſs, or a* Pingue-dulce, *and*

though their inciding property render it thin and fluid. 3. *A Saponary conſtitution of the Blood doth aſſign Remedies, that obtain a power not only of allaying the alcalious qualities of the Salts, but alſo of depurating and volatilizing the incraſſated Sulphurous Particles, that are fixt and imbodied with the Alcalious Salts.*

§. 3. In reſpect of their too much increaſed quantity, they ſeem to direct the Phyſician to Diminution or Subſtraction, which is accompliſht by *Pharmaceutical* and *Chirurgical* means. The latter are, 1. *Phlebotomy*, for diſburdening and depleting ſome part of the whole, which in Hepatic and Stomachic *Scorveys* is to be performed in the right Arm; in a Splenetic in the Left, and in a Pleuritic *Scorvey* in the Arm of the ſame ſide. After a competent Interval, for derivation from, and eaſing of the part affected, a particular ſubſtraction of Blood out of the *Hemorrhoide veins* by the application of Leeches is of great uſe in an Hepatic or Splenetic *Scorvey*. In Women, eſpecially if there be either a Total or partial ſuppreſſion

pression of the *Menstrua*, the *Saphæna* ought to be opened. The measure of what quantity of Blood is requisite to be subducted, is to be taken from the degree of Plethory, Age, Sex, and other common Circumstances.

2. Fontanels or Issues, than which no means, whether *Chirurgical*, or *Pharmaceutical*, seem more advantageous and necessary, both for a præservative, and Curative. Touching the Place, where an Issue is most proper to be made; in a Splenetic *Scorvey* is in the inside of the Leg above the Knee, an Inch or two higher than the Gatering place; but here the *Surgeon* is to be very cautious, that in making the Incision, he doth not wound some of the Vessels, that pass just underneath, which is frequently done if made too deep, and sometimes not without danger. In an Hepatic *Scorvey* the Right Leg is most proper, in a Stomachic either, it matters not. The *Mouth-Scorvey* indicates an Issue in the Left Arm, or in some cases in the Neck, or Right Arm, or in some very few on the Head, on the place of meeting of the *Sagittal* and *Coro-*

nary Suturs. In the *Leg-Scorvey* an Iſſue above the Knee is more rational. In the *Joint-Scorvey* more Fontanels than one are neceſſary, to be made in the Arm or Leg, and ſometimes in the Neck alſo, according to the circumſtances of the Diſeaſe.

Children that are Born of Scorbutic Parents, receive a great benefit from Iſſues, that are made in the Neck or Arm; but for prævention, that the Scorbutic ſtain wherewith ſome Child bearing Women are contaminated, ſhall be communicated to the Child in the Womb, nothing is of æqual force to an Iſſue in the Arm. The too much increaſed quantity of Scorbutic Humours indicating Pharmaceutical evacuations, is to be diminiſht, or abated by Laxatives or Eccoprotics, and Purgatives or Cathartics. The former are uſually præmiſed before Bleeding (where required) and Purgatives.

CHAP.

CHAP. XXII.

Of Antiscorbutic Laxatives.

1. *An excellent Præparation of* Aloes. 2. *A description of the* Francfurt *Pills.* 3. *Of* Aloes Rosata, *and* Bontius *his Pills of* Tartar. 4. *Of the Virtue of Aloetic Pills.* 5. *Two particulars to be observed in the Præparation of* Aloes. 6. *Some other Laxatives proper also in the* Scorvey.

§. 1. *Aloes* is the chief Laxative, and indeed the *Basis* of most Purgative Pills; but in regard that it's offensive to the Stomach and Liver, and that by reason of its bitter Acrimonious Lixivial parts, it's of a nature so Colliquative, and Irritating, that it's apt to force the Blood out of its Vessels, and particularly to excite a *Tenesmus*, and Hæmorrhoidal pains, necessarily requires such Correction and Præparation, as may render it not only

leſs hurtful, but alſo particularly appropriated to the Stomach. The præparation, which I have frequently Experienced, to excel all others, is this following.

℞. *Aloes Succotr. groſ. pul.* ℥ i.
Flor. Roſ. rub. ʒ i. ſs.
Spir. Sal. com. gut. xl.
Spir. Vin. non rectif. ad.
Supereminent. iiii *digit.*
f. digeſt. in ciner. per hor. xii.
coletur & evapor. ad extr. conſiſt.
cui adde Ol. Garyophyl. vel. Nuc.
Muſcat. ſtillat. gut. xx.
Doſ. a gr. xv. *ad* lx.

§. 2. Tthe *Francfurt Pills*, otherwiſe called *Pil. Angelicæ*, Invented by *Hartman Beyer*, have not only kept up their Reputation for many years, but to this day are accounted of great Virtue in *Germany* and *Holland* againſt Scorbutic Diſtempers, inſomuch, that many Thouſand Boxes of them are every Year diſperſed to all Neighbouring, and ſome remote Countries alſo, ſo that they are found to be as ſtabil a Commodity to the *Francfurter* Apothecaries,

thecaries, as *Treacle* to the *Venetians*, or *Confectio Alkermes* to those of *Monpelier*. The gain that hath been acquired by them, is the occasion their Præparation hath been kept so private, though at præsent is grown publick enough. The description I had of it at *Francfurt* is various, some præparing them one way, some another, though in the whole it comes much to one. The most received Præparation is that, which consists of an incomplete and complete Extract of *Aloes*. In manner following,

The incomplete Extract is.

℞. *Aloes Succotr.* ℔ ſ.
Aq. Borrag. ℔ i ſs.
Diger. per hor. xxiiii.
colatura fort. expreſſ.
evap. ad conſiſtentiam.

The complete Extract is.

Materiæ inſpiſſat. aſſund.
Suc. Card. Ben. ℥ vi. *aliis* ℥ viii.
Digerant. rurſus per hor. vi. *& expreſſio evaporet. ad ſpiſſit. Extract.*

§. 3. In *Italy* the præparation of *Fabritius ab Aquapendente* was, and is ſtill of æqual Fame with the former, and is nothing but *Aloes Roſata*, whereof the ſaid *Fabritius* for many years together was wont to take every day a little before his Supper half a Scruple, for a præventive of Diſeaſes and a prolongative of Life. *Leonard. Donatus* writ an entire Tract upon the Deſcription, Virtues, and Uſe of *Aloes Roſata*, concluding the laſt Chapter with this Expreſſion, That as the *Romans* anciently through Sobriety lived to the Age of Six Hundred Years, ſo he hoped to Live no leſs by the uſe of *Aloes Roſata*.

Bontius his *Pil. Tartar.* are alſo of excellent uſe for the ſame purpoſe, the Deſcription whereof you have in *Scroders Pharmac.*

§. 4. It is among the Records of Experience, that *Aloetic Pills* are a moſt ſafe and effectual Præſervative from the *Scorvey*, being at convenient times uſed once or twice a Week or oftner; they are likewiſe a great Præparative, that may be præmiſed before

fore a Curative Method of a *Recent*, and *Inveterate Scorvey*. They offer no violence to Nature, which the Vulgar *Mountebancks* Universal, or Scorbutic Pills, Elixirs, and prætended purgative Cordials do in so rude a measure, that many have and daily do purchase them with the loss of their Lives. Were I obliged to set down the Names of all those bold adventurous Elixir-purchasers, or Pill-Chapmen, that in one Year only are untimely posted away to their Graves by those Deleterious Medicines, it is not twice the Bulk of this Treatise would contain a space large enough for a Register.

How gently those *Aloetic Pills* cleanse the Stomach, the Guts, and Mesaraics of their Drossy Mucilaginous and Tartarous Dregs, and that without the least perturbation of Humours, alteration of Body, change of Countenance, impair of Strength, or any ill attendance, may be admired. That they gently remove Obstructions, excite an Appetite, and render the Body vigorous and prompt to Motion, is a most certain Truth.

§. 5.

§. 5. Two particulars are to be obſerved; The one is in relation to their Præparation, *viz.* That they be præpared ſingly, without the admixture of thoſe prætended correctives contained in the Compoſition of *Hiera Picra*, *Ruffi*, *Maſtichin*. and ſuch like; for all that *Farrago* or Miſcellany of *Aſarum ſpic. croc.* &c. in the *Hiera*; *Myrrhe*, and *Saffron* in the *Ruffi*, doth not only ſo much increaſe the Mole of a Doſe, that in ſtead of two Pills of ſimple *Aloetics*, you are obliged to ſwallow down Eight or Nine, but it occaſions alſo a Tumultuation and Ebullition in the Stomach, and all the Veſſels, inflames the Body, and ſets all the Humours afloat.

The ſecond is in relation to their proper Uſe and Exhibition, where you are to take notice, that they are only appropriated to an *Acid Scorvey*, being otherwiſe very præjudicial in a *Lixivial*, and *Saponary Scorvey*, alſo to all hot and dry Temperaments, lean and thin habits of Body, and ſuch as are ſubject to *Hæmorrhages* of the Noſe or *Hæmorrhoides*, or exceſſive *Menſtrua*.

§. 6.

§. 6. The Laxatives proper in a *Lixivial* or *Saponary Scorvey*, are *Polypody, Sem. Cartham. Epithym. Cassia, Manna, Tamarind. Prun. dam. Passul. Tartar. Rhen. Crud. Crem. Tartar. Syr. Ros. sol.* Out of these may be composed Decoctions, or Bolus's; or in stead of them may be substituted Laxative Glysters.

CHAP. XXIII.

Of Scorbutique Purgatives.

1. *The great virtues of* Senna. 2. *Of* Agaric, *and* Mechoacan, *also of Halo-cathartics, and Gum-cathartics. Of composite Medicines.* 4. *A Caution in Purging Scorbutic Bodies.* 5. *A Purgative Apozem.* 6. *A Cathartic Powder.* 7. *Antiscorbutic Pills.* 8. *A pleasant Purgative Electuary.*

§. 1. CHymical Practisers cannot with greater Truth affirm, that *Antimony* is capable to Cure all Dis-

Diſeaſes, then in the ſame ſenſe I may confidently aſſert, that *Senna* before all others is the moſt noble, ſafe, and effectual Vegetable Purgative, whereby moſt Diſtempers depending upon a Cacochymy, may be perfectly removed, and eſpecially thoſe, that are Scorbutique.

§. 2. *Agaric* and *Mechoacan*, are the next Purgatives, that ſeem to be ſpecifically appropriated to Scorbutic Cacochymies. Beſides theſe, all *Hydragogal Cathartics* in general are experienced, to contain a peculiar faculty of Evacuating, and purging abounding vitiated *Acid* Salts, and among thoſe *Syr. è Rham. Cath.* is præfer'd for a mild and ſafe *Halo-Cathartic.* Thoſe of a more rude nature, and conſequently more proper for Robuſt Bodies, and inveterate Diſeaſes, are *Elater. Gut. Gamb. Gialap. Extr. Eſul. Snc. iridis noſtr. Soldanel.*

Gum Cathartics in obſtinate Caſes are of admirable Virtues, but muſt be uſed in their due ſeaſon; ſuch are *Gum Ammoniac* eſpecially, *Opopanax*, and *Sagapenum.*

§. 3.

§. 3. Thus much for the Simples, the Compoſits are theſe following; but before I proceed upon them, let me recommend one Rule of Caution to you, That the leſs Compounded Medicines are, the more certain are their Effects, and leſs ſubject to diſturb the Spirits: For a Medicine that conſiſts of manifold Ingredients, though perchance it may perform the ſame Operation, will occaſion a greater Perturbation, and with ſo much uncertainty, that you ſhall not know, to which of the Ingredients, the ſucceſs is to be chiefly aſcribed. Moreover, though for Ornament and the Dubiouſneſs of the Diſtemper a Polypharmacal præſcription may be allowed, yet in Scorbutique Maladies, where the Blood upon the leaſt irritation is ſo apt to be exagitated, and moved into a tumultuous Ebullition or ὀργάσμος, it's incompatible.

§. 4. Secondly, Be mindful of this Remarque, that Scorbutics, becauſe they are ſo much expoſed to an Oppreſſion, and Depauperation of Vital and

and Animal Spirits, as appears by their low inæqual Pulſes, the imbecility of their Joynts, and oppreſſed Reſpiration, cannot bear much Purging, eſpecially by violent Cathartics, neither is there that Concoction (πέψις) nor Separation (διάκρισις) of Humours, which are neceſſary before Evacuations; wherefore purge ſeldom, and that only with gentle Medicines, unleſs the Robuſt Conſtitution of the Body, or the Radication or Greatneſs of the Diſtemper ſhould require it.

§. 5. The forms of Purgative Præſcriptions, *viz.* of an *Apozem.*

℞. *Rad. Polypod.* q. *Helen.* an. ℥ ſs.
Fol. Agrimon. Aſplen. an. M i. ſs.
Sum. Abſynth. P. i. *Paſſul.* m. ℥. i
Fol. Sen. or m. ℥ vi. *Agar. albi.* ℥ i ſs
Tartar. Rhenan. ℥ i. *Zing.* ℈ ij ſs
Coq. in Aq. Fon. q. s. in Colat. ℔ i
diſſolv. Syr. Roſ. ſol. ℥ i ſs
M. f. Apoz. *pro* iii. *doſ. matut.*

§. 6.

§. 6. Of a Powder.

℞. *Crystal. Tartar.* ℈ ii.
Flor. Sal. Armon. chal. ℈ ſs
Scammon. Sulphur. gr. vi. vel viii
M. f. Pul.
Capiend. in juscul. cochl. i. vel ii.

§. 7. Of Pills.

℞. *Fol. Sen. or.* ʒ ii.
Nitr. Tartar. ʒ i.
Resin. Scammon. ℈ i.
Ol. Garyophyl. gut. x.
Syr. e Rham. Cath. q. s.
M. f. Mass. Pill. *Dos.* ʒ i.

Others of great Virtue.

℞. *Aloes præp. nost. vel Rosat.* ʒ ſs.
Tartar. Vitriolat. ℈ i.
Resin. Gialap. gr. iiii. *vel.* v.
Ol. Garyophyl. gut. ii.
Syr. ros. Sol. q. s.
M. f. Pill. vii.
deaurentur.

§. 8.

℔. 8. Of an Electuary.

℞. *Mechoacan. ras.* ℈ i.
Gialap. pulv. gr. xv.
Ol. Stil. Macis. gut. iiii.
Man. Calabr.
Pulp. Tamarind. an. ʒ ii.
Sy. Roſ. ſol. q. s.
M. f. Elect.

This laſt præceding I have oft in a *Lixivial Scorvey* præſcribed with ſucceſs to thoſe, whoſe Stomach could not bear an ill taſted Medicine.

CHAP. XXIII.

Of Antiſcorbutic Alteratives.

1. *Antiſcorbutic Alteratives.* 2. *Spagyric Antiſcorbutics.* 3. *An Antiſcorbutic Decoction of great Virtue.* 4. *An Antiſcorbutic Liquor.* 5. *A Liquor by expreſſion of Juices.* 6. *A Liquor by Infuſion.* 7. *An Antiſcorbutic Spirit.* 8. *A different proceſs to*

to abſtract Antiſcorbutic Spirits. 9. *An Antiſcorbutic Syrup.* 10. *A different proceſs of præparing the* Elixir Proprietatis. 11. *That* Crocus Martis *as it is præpared by the* Oxonian *Author, is very hurtful in the* Scorvey. 12. *That* Steel powder *in ſome caſes, is poyſonous.* 13. *That* Vitriolum Martis *is Aſtringent and not Ecphractic.* 14. Tunbridg Waters *examined, and their true Principles diſcovered. How they ought to be uſed with Benefit.* 15. Barnet *and* Epſom Waters *Examined.*

§. 1. IN an *Acid Scorvey* theſe following are æſtimated Specific Antiſcorbutics, *viz. Cochlearia Hort.* Garden Scorvey-graſs, being the chief of all the reſt, the next is *Naſturtium aquaticum* Water-creſſes, *Becabunga* Brooklime, *Sedum minimum* Wall-peper, *Armoracia* Horſe-radiſh, *Perſicaria* Arſmart, *Arum* wakerobin, *Semen ſinapi* Muſtard-ſeed, *Semen Erucæ* Rocket-ſeed, *Saponaria* Soopwort, *Chelidonium majus* Selandine, *Guaiacum*, *Cortex Winterani*, the Flowers and Spi-

rits of *Sal Armoniac*, Spirit of *Soot*, and of *Harts-horn*.

§. 2. There are alſo other Simples, which though they are not Virtuated with ſo Specifique and Anticorbutic a faculty, yet by deobſtructing and deterging the Bowels and Meſentery, and attenuating the groſs Tartarous Blood, they are oft Experienced ſingularly to contribute to the Cure of Scorbutics, *viz.* *Rhaponticum verum*, *Helenium* Elicampane, *Iris Florent.* Orris *Gentiana*, *Centaurium minus*, *Abſynth.* Wormwood, *Betonica* Betony, *Salvia* Sage, *Petaſitis* Butter-burre, *Filix* Fern, *Chamædris* Germander, *Baccæ Juniperi*, *Sambuci* Elder, *Ebuli* Dwarf-Elder, *Satureia*. Hereunto may be added the common Splenetic Vegetables, as *Fumaria*, Fumitory, *Cort. Rad. Cappar* the Bark of Capper-Root, *Cort. Tamariſc.* *Cort. Fraxini* Bark of Aſh, *Ceterach* Spleenwort, *Agrimonia*, &c.

The Hermetic Art recommends *Tinctur. tartari*, *Tinct. Antimon. tartar.* *Elix. Proprietat.*

The ordinary Chymical Salts, as *Sal*

Sal Abſynth. Cochlear. Card. Centaur. by as much as they participate of the Nature of Common Salt, are abſolutely hurtful. Among the Common Spices, *Pepper* is experienced to be of an Ebullititious nature, and very præjudicial to all Scorbutics, and therefore ought to be omitted in thoſe Præſcriptions the Learned *Oxonian* hath recommended to the Publick.

What concerns the forms of Compoſitions out of theſe forementioned Simples, it is to be remarqued, that Electuaries, Tablets, Powders, and Syrups alſo, unleſs præpared according to that or the like manner I ſhall propoſe below, are of little or no uſe, and are only interſperſed by Authors among their forms for pomp, or to add to the Bulk of their Tracts; for it's the *Volatil Salt* is the ſole energic part of theſe Vegetables, which in the præparation of Conſerves, and Syrups, and in reducing them into Powders for the uſe of Tablets, doth Evaporate; wherefore I ſhall only offer to you ſome few ſelect Forms of Decoctions, Infuſions, Diſtill'd Waters, Spirits, and Juices.

§. 3. The form of a Decoction of little Trouble, and leſs Charge, but of great Virtue.

℞. *Scob. Lign. Sanct.* ʒ ii.
Lign. Saſſafr. ʒ i.
Sal. Tartar. ʒ i.
Coq in Aq. font. ℔ iiii. *ad conſumpt. medietat. in Colat. infund. fol. Cochlear. hort.* M. iiii. *Becabung* M. ii. *Abſynth.* M. ſs. *Cort. aurant.* ʒ ii. *Coletur & reſervetur in Ampul. Vitr. Doſ.* ʒ iiii. *ter per diem horis Medicis.*

In the *Winter* when Herbs are ſcarce, I have frequently recommended this following with good Succeſs.

℞. *Fol. Cochlear* M iiii.
Chelidon. maj M ii.
Bac. Junip. ʒ i.
Contundantr in mort. marm. ſenſim affund. Vin alb tenuior. ℔ i. *exprimatur Liquor & reponatur in ampul. vitr. qui reſidendo clareſcat. Doſ.* ʒ iii. *vel* iiii. *bis vel ter per diem.*

§. 5.

§. 5. Of a Liquor by expression of Juices.

℞. *Fol Cochlear. succulent. q. l.*
Fol. Becabung.
Nasturt. aquat. an. part med.
Contund. in mort marm. pist. lign:
Liq. valide express. ℔ ii *adjiciantur. Cort. Winteran.* ʒ ss. *Cort. exter. aurant.* ʒ ii *Croc. Anglic* ʒ ss. *in phiola probe obturata per hor* 12. *digerantur calore leni, dein liq. coletur & in vitr. reponatur. Dos.* ʒ iiii. *bis per diem.*

§. 6. A Liquor by Infusion.

℞. *Rad. Armorac.* ʒ i.
Rad. Gentian. ʒ ii.
Fol. Nastur. aq. M ii.
Fol. chamæd. Saponar. an. M i.
Flor Centaur min. P i.
Rad. Zedoar. ʒ i
f. infus per noct. in Aq. Sassafr. odorif. Vin. alb. an. ℔ i. *Coletr. de colat. capiat.* ʒ iii. *vel* iiii. *pro Dosi.*

℔. 7. ℞. *Rad. Helen. rec.* ℥ ii.
Raphan. ℥ i ſs.
Lign. Saſſafr. ℥. i.
Fol. Cochl. Cichor. an. M x.
Fol. Salv. Beton. an. M ii.
Sed. min. Perſicar. an. M i.
Baccar. rec. Junip. Samb. an. ℥ ii.
Deſtillentur per veſic. cum refrigerio ſuſpendendo in roſtro alembic. croc. anglic. in pet. ligat. ℥ i ſs. *capiat* ℥ iii. *pro Doſi.*

℔. 8. Spirits that are drawn by way of Fermentation do, beſides the trouble and length of time required, ſuffer a conſiderable loſs in their Volatil and Spirituous particles, which to evade, hath given me the occaſion to find out a way, whereby the ſaid Spirits are Extracted in a greater quantity with very little Trouble or Coſt, and much exalted in their virtues. This following I have oft Diſtilled, which may ſerve for a form for all the reſt of the ſaid Antiſcorbutique Vegetables.

℞. *Rad. Armorac.* ℥ iii.
Lig. Saſſafr. Cort. Win. Aur. an. ℥ ſ.
Fol. Salviæ M i.

Sum.

Sum. Abſynth. vulg. P i.
Sal. Armoniac. ʒ ii.
Vin. alb. ℔ i. *contuſa & conciſa digerantur per hor.* xxiiii. *dein deſtill. per Alemb. vitr. in cujus cucurb. fuerit calc. Viv.* ℔ ſs. *Doſ. a gut.* xx. *ad gut.* xxxx.

§. 9. An Antiſcorbutic Syrup.

℞. *Succ. rec. expr. Cochlear.* ʒ viii.
Suc. Anagal. aquat. ʒ iii.
Suc. Betonic. Card. Ben. an. ʒ i.
Sacchar. alb. ℔ i. *depurando Coq. ad ſpiſſit. Syr. craſſ. cui frigefact. affund. Spir. Cochlear. & Anagal. Aq. prædicto modo ſimul deſtil.* ʒ i.
M. f. Syr.

§. 10. What relates to *Elixir Proprietatis*, præpared according to the proceſs of *Crollius*, it's a Medicine beyond all Objections very proper againſt the *Scorvey*; but two Inconveniencies I apprehend in it, 1. By the immediate affuſion of ſo great a proportion of Spirit of *Sulphur*, the other Ingredients are Aduſted or Burned,

whence the *Elixir* afterwards contracts an Empyreumatique ſcent and taſte. 2. By reaſon of the Various Digeſtions and Diſtillations is conſumed a great deal of time, attended with ſome needleſs Coſt and Charge. Both theſe the College of Phyſicians of the *Hague* endeavoured to avoid, by directing the procedure in their *Pharmacopœa*, Fol. 106. in this manner,

℞. *Aloes puriſſ. Myr. Elect.*
Croc. Anglic. an. ʒ i.
tritis ac vaſi vitreo anguſt. oriſic.
inditis, ſuperaffunde
Spir. Vin. rect. ℔ i ſs.
Ol. Sulphur. rect. ʒ vi.
Vaſe optime clauſo f. digeſt. in VB.
per dies quatuordecim; tinctura abſtrahatur, quæ per decant. ſeparata ſervetur uſui.

Although by this præſcription they ſeem to have ſuperated thoſe two forementioned Inconvenients; there is a third remaining, which renders it very Incommodious for Exhibition, namely, that upon the Inſtillation thereof into any Aqueous Liquor, it's apt to be præcipitated in the form of

a

a Mucilage, all which to avoid hath given me the occaſion, to præpare the *Elixir Proprietatis* thus:

℞. *Aloes Succotr. Myr. Elect.* an. ʒ i. *Sal. Marin. bene exiccat.* ʒ iiii. *Diſtil. per retort. vitr. in aren. oleo deſtill. affund. ſpir. vin. rect.* ℔ i ſs. *ſpir. ſalis rect.* ʒ i. *addendo Croc. anglic.* ʒ i. *poſt digeſt.* 4. *dier. in ciner. decant.*

Vel.

Adjiciatur Croc. Angl. ʒ ſs. *& diger. per dies* 4. *dein diſtil. in cucurbit. humil. appendendo extremitat. roſtri alembic. croc. odoratis. nodul. inclus.* ʒ ſs.

Guttulæ oleoſæ ſupernatantes ſeparentur per tritor. & ſaccharo albis. diſſolut. addantur liquori diſtillato.

§. 11. Medicines præpared of *Steel* have their particular uſes, even in this ſort of *Scorvey*, being deſigned to ſweeten the Blood, by obtuſing or alaying, and imbibing the putrid *Acid* Salts of the Blood; to this purpoſe the Learned *Oxonian* Author doth ſingle

gle out from all other præparations that ſort of *Crocus Martis*, which by a long continuated Calcination is elevated into an *Acool*, and totally ſtripped of its Salin and Sulphurous particles, imagining that the foreſaid *Crocus* through its droughty natury, doth *Appetere* and Abſorb all Acrimonious Salts and Sulphurs of the Humours, as being Conſentaneous to thoſe it is now deprived of. This Mode of Reaſoning is moſt certainly verified in the Nature and Effects of *Antimonium Diaphoreticum*, *Coral*, *Pearl*, &c. But nothing is more Erroneous, than the applying it to the *Ætiology* (as he may term it) of that kind of *Crocus Martis*; for abſtract from it Vinegar, or any other *Acid*, by Deſtillation, and you ſhall Experience it, to come over every whit as *Acid*, as when it was Affuſed. Wherefore it ought to be abandoned from being uſed in any Diſtemper, excepting in ſome Looſneſſes or Hæmorrhages, where and when Emplaſtics may be judged ſerviceable, and in thoſe caſes I have obſerved the Effects of *Terra damnata Vitriol. dulc.* far more ample, having oft præſcribed it with Succeſs. §. 12.

§.12. All præparations of *Steel*, that consist in the form of Powders, are attended with an unavoidable inconvenience, being apt through their weight to descend to the bottom of the Stomach, and sometimes to penetrate through the Pores of the inward Tunic, and there lodg between the Tunics, occasioning so great an oppression, that the Patient is rendred subject to almost Incurable Palpitations and Lipothymies; for the *Steel* Powder is only with the greatest difficulty, and sometimes never to be Expelled from between that Tunics; insomuch that under that notion it may be termed Synonymous with Venoms, against which the Magnet Stone powdered and exhibited Internally, is the only Antidote. Not many years since I dissected one that expired of a *Dysentery*, against which an *Apothecary* had for many dayes given two and three Drams of *Crocus Martis astring.* for a Dose; the same præparation that is so much Extoll'd by my Author. Upon the separating of the *Tunica Rugosa* from the middle Tunic, I detected a vast quantity of red sand, which upon

upon Examination of what had been taken, I found was ſome of the *Crocus Martis* this skilful Glyſter-pipe Doctor had given.

§. 13. Thoſe that conſider Salts to be diſſoluble, præfer *Vitriolum Martis* before Chalybeat Powders, deſigning thereby to avoid the Permanence of the latter in the Body; but then are certainly Fruſtrated in their ſcope of reſerating oppilations, there being nothing ſo prævalent in an Obſtructive and Aſtrictive quality, as the foreſaid *Vitriol* of *Steel*, which that you may give the greater credit to, this I do diſcover to you as a great Medicine for ſtenching Hæmorrhages, and it is by this ſole præparation I have Cured a great number of Spitting of Blood, and ſeveral Women of immoderate Uterin Fluors, both Sanguinolent, and White. Wherefore it muſt be deemed an Error *Albo calculo notandus* in thoſe, that prætend to imitate Diuretic Mineral Waters, ſuch as the *Savenier* at the *Spaw*, and the Wells of *Tunbridg*, by diſſolving of Chalybeat Vitriol in Spring-Water: But how great a Detriment this muſt neceſ-

neceſſarily import, may be beſt underſtood from thoſe, to whom they have been præſcribed. Notwithſtanding by means of another Method, Artificial Mineral Waters may be præpared ſo effectual and pleaſant withall, that they ſhall in a great meaſure excel the Natural. By the advantage of theſe it is I have freed ſeveral from *Lixivial Scorveys*, that had proved obſtinate to all other Methods.

Touching the uſe of Purgative Mineral Waters, *viz.* *Barnet*, *Epſom*, *Dulledg*, *Chigwel*, *Stretham*, *Northall*, &c. To ſome Scorbutics they have proved Auxiliary, to others Hurtful.

§. 14. The Virtue of thoſe Diuretique Mineral Waters is derived, from a permixture of ſome crude Elements of *Iron*, imperfectly Coagulated or Compounded into Particles, with Water ſourcing near and waſhing through the *Matrices* of the ſaid Crude imperfect ferruginous Elements; or to be more plain, the ſaid Mineral Waters do conſiſt of a diſſolution of Vitriolat Salt, volatilized by the *Sulphur* of *Iron*. From the *Vitriol* it is, the Water

ter is diſpoſed to turn black upon the addition of *Galls*; from the Volatilizing *Sulphur* aſſociating to it ſome of the Subtileſt, Acid, Piercing, and Inſinuating Particles of the Vitriol, it is, that they prove ſo excellent in driving down the Urin; and from the Exhalability of the ſaid Volatil Salt or *Sulphur*, volatilizing the pureſt part of the fixt Salt, it is, they upon a very ſmall interval looſe their Diuretic Virtue, eſpecially if violently ſhaken or moved, by being tranſported by Horſe or Cart; though notwithſtanding that, they will not leſſen in their aptneſs of turning black by Galls, as long as they continue Imprægnated with the fixt Vitriolat Salt, which probably may be long enough; but in the *Interim* I would have you to eſcape that Error, many unpoliſht Philoſophers commit, in judging the ſaid Water to continue vigorous in its Urinating quality, as long as it continues alterable by Galls. On the contrary, as ſoon as it hath ſuffered the loſs of all its Volatil Salt, which is in very few dayes, it doth aſſume a binding obſtructive quality, and that in ſo dangerous

gerous a manner, that ſome have died of it; for the Water remaining in their Bodies, and not being carried off, had ſuffocated the Vital flames of the Heart and Arteries.

Thoſe that have made Obſervation on the number of ſuch, that have been hurried out of the World both at the ſeaſon of their drinking the Waters of *Tunbridge*, or ſoon after they had left them off, may very well conclude, either, that the ſaid Waters were not proper for their Diſtemper, or that as too frequently happens, their Bodies were inſufficiently præpared; for it is far from a proportionable præparative, to Exhibit only a Doſe of Stomach Pills, or a little *Pulv. Senæ comp. maj.* but upon the uſe of a proper Purge or two ſome good Aperitive præparation of *Steel* ought likewiſe to be mixt with a Cathartique, and then they will Experience their Bodies to have been well præpared by the ſafe and ſucceſsful uſe of the Waters upon it.

§. 15. The Waters of *Barnet*, *Epſom*, &c. are rendred Diuretic, Purgative,

gative, and ſometimes Vomitive, through an Imbibition of ſome Immature principles of *Copper*, as appears on the tryal by *Lapis Calaminaris*, or *Sal Armoniac*. The Cathartique and Emetique Faculties iſſue from the *Sulphur* of *Venus*.

Among other numerous capricious Chalybeat præparations, I find no form ſo agreable, and greatly ſucceſsful, as the Tincture of *Steel*; but not when præpared after the uſual ſlovenish Mode. Some ſorts of Dulcifying Medicines in many Caſes do wonderfully contribute to the Cure of an *Acid Scorvey*, by obtuſing the Acrimony of the Blood; ſuch are moſt Teſtaceous Simples, as *Coral*, *Pearl*, *Crabs-Eyes*, *Crabs-Claws*; *Oyſter*, *Muſcel*, and *Egg-ſhells*; add to theſe *Antimonium Diaphoreticum*, *Bezoard. Mineral. Bezoard. Jovial. Magiſter. Jovis*, *Chalk*, &c.

CHAP.

CHAP. XXIV.

Of Specific Alteratives in a *Lixivial* and *Saponary Scorvey.*

1. *Antiscorbutic Simples of the first Order.* 2. *Simples of the second Order.* 3. *Simples of the third Order.* 4. *A Narrative of a Scorbutic Case.* 5. *Some other Antiscorbutics.* 6. *An account of another Scorbutic Case.* 7. *A third Scorbutic Case.* 8. *Some other Chymical Antiscorbutics, and a Description of the Author's* Nitrum Tartarisatum .9. *The great Virtues of this* Nitrum Tartarisatum.

§. 1. THe Simples that are indued either, 1. With a Lentour or Mucilaginous moisture. 2. With an Acidity. Or, 3. With a cooling detergent Faculty, are æsteemed very proper, and useful in an Alcalious Scorbut. Through the first

of theſe Qualities, they Lenify and Mitigate the Acrimonious Salts of the Humors; through the ſecond, they Hebetate the corroding *Alcali*; and through the third, they move, attenuate and divel the *Pendulous* parts of the Blood, withall Clarifying or Depurating it from its Impurities.

1. Of the firſt Order. Are,

Borrage, *Bugloſs*, *Violets*, *Mallows*, *Marſh-mallows*, the four greater Cold Seeds, *Jujubees*, *Sebeſtens*, *Corrents*, *Liquoriſh*; *Gum Arabic*, *Dragant*, *Milk*, and in ſome Caſes the *Milk Diæt.*

2. Of the ſecond Qualification. Are,

Acetoſa Sorrel, *Trifolium Acetoſum Wood-Sorrel*, *Oranges*, *Limons*, *Citrons*, *Cremor* and *Spiritus Tartari*, *Spiritus Dianæ*, *Spir. Sulphuris*, *Vitrioli*, *Salis com. nitri*, *Veneris Ex ærugine*, *Antimonii*, *Spir. acid. Guaiac. Juniper*, *Liquor Corallorum*, *Perlarum*, *Cryſtalli acidæ nitri*, &c.

3. Of the third Ranck. Are,

Liguſtrum Privet, *Aparine* Clivers, *Chelidonium minus* Pilewort, *Nummularia* Money-wort.

4. Theſe four are by Authors proclaimed

claimed Specifics in the *Scorvey*, the frequent Experience of their Uſe in ſome Scorbutiques confirming them to be ſuch; but their Ignorance, through what manifeſt Virtue their Effects are performed (theſe being diametrically contrary to the other *Igneous Volatil* Specifics) renders them incapable of judging, to what ſort of Diſtemper, in what manner, and at what time they ought to be applied. A while ſince, a Patient made her complaint to me of ſharp running pains, flying up and down her Limbs, a pricking in her Gums, glowing of the Calves of her Legs, and ſometimes of the Shins, a gnawing pain about her Ancles, eſpecially upon much ſtirring, heats and puſtles in her Face. She had made uſe of ſeveral Phyſicians, whoſe Opinion concluded her Diſtemper to be the *Scorvey*, and therefore had præſcribed ſeveral Decoctions, and Infuſions of *Scorvey-graſs*, *Watercreſſes*, &c. Diſtill'd Waters, and Spirits of the like Ingredients, all which ſhe found, had rendred her much worſe, but ſome two Years before, confeſſed ſhe had derived much be-

nefit from them, but now they extremely aggravated her Symptomes. This method of Cure I perceived depended on Indications, deſumed from thoſe peſtilent principles of *Rancid* and *Pendulous*. The Error flowed from apprehending this an *Acid Scorvey*, which plainly appeared to be *Lixivial*. I præſcribed her this Lenitive:

℞. *Pulp. Caſſ.*
Tamarind. an. ʒ ii.
Mechoacan. alb. raſ. ʒ ſs.
Pulv. ſen. comp. maj. ℈ ſs.
Crem. Tar. ℈ i.
Syr. roſ. ſol. ʒ ii.
M. f. Bol. ii.
Deaurentur.
Capiat mane cum cuſtodia.

This Operated very gently and well, upon one days interval it was repeated. The fourth day ſhe took this following Drink, and continued it three Weeks.

℞. *Rad. Bugloſ.* ʒ i ſs.
Fol. Aparin.

Num.

Nummular. an. M. iiii.
Decoq. in Ser. lact. q. s. ad ℔ i ſs.
In Colat. diſſolv. Cryſt. Tar. ʒ i ſs.
M. f. Apoz. *pro* 4 *doſ. mat. & veſp.*

Once a Week ſhe made uſe of the above written Bole. In the ſpace of her whole Courſe of Phyſick, ſhe was Blooded once in the Right Arm, and once at the *Hæmorrhoides*. The ſucceſs of theſe Means reſtored her perfectly to her former Health, in leſs than a Month, which ſhe hath enjoyed ever ſince. How eaſily is a Diſtemper Cured, whoſe Cauſe is rightly underſtood; whereas had this Woman adhæred to the præſcriptions of her pendulous Phyſicians, ſhe would certainly have been among her Anceſtors long ere this. Others I Cured of the ſame kind of *Scorvey* (*Præmiſſis Univerſalus*) chiefly by this following:

℞. *Rad. Sarſaparil.* ʒ iii.
Rad. Chin. non carioſ. ʒ i.
Raſur. Eboris ʒ vi.
Coq. in aq. font. ℔ vi. *ad conſumpt. unius tertiæ; ſub fin. coct. adde.*
Rad. Cichor.

Scorzon. an. ℥ iſs.
Fol. Chelidon. min. M. vi.
Colaturæ affunde
Elix. Antimon. fulv. ʒ i. ſs.
M.
Capiat ℥ iiii. *ter per diem horis Medicis,*

Note, that *Sarſa* and *China* are made uſe of in this Decoction, not for their Sudorifique faculty, but for a quality they are endued with of ſweetning the Blood, by obtuſing its Acrimonious Salts, through the Lentour, which their farinaceous ſubſtance contributes to the ſaid Decoction.

5. To thoſe four principal Antiſcorbutic Vegetables may be added theſe following, *Scorzonera Hiſp.* Vipers-Graſs, *Clematis Daphnoides* Periwinckle, *Rhaponticum vulgare* Great Centaury, *Virga Aurea* Golden Rod, *Rumex acutus* Ditchdock, *Hiſpidula* Catsfoot, *Auricula muris* Mouſeare, *Aquilegia* Columbine, *Rad. Graminis*, *Geranium Rupertianum* Herb Robert, *Pyrola* Sea-lavender, *Cichoreum* Succory, *Sempervivum majus* Houſleek, *&c.*

6. The difference in qualities of theſe Simples

Simples cannot eſcape your Advertency (though all agreeing in the ſame faculty, of oppugning *Lixivial* and *Saponary Scorveys*) ſome being temperate, ſom cold and moiſt, others cold and dry, and aſtringent; for which reaſon you may præſume, their uſe is limited to *Diſeaſes*, though *Lixivial*, yet attended with particular Symptoms, ſo that they are not promiſcuouſly to be applied. But becauſe Practical Inſtance; may ſerve you for a more clear Example, I will give my ſelf that trouble, of ſetting down the Caſe of a Patient, who Repaired to me the laſt præceding Year; it was a great heat in the *Epigaſtrical* Region of the *Abdomen*, that chiefly incommoded him, which for the moſt part exerciſing its fury in a fixt place, that ſometimes was at the bottom of the Stomach, ſometimes a little lower (which muſt be in the *Pancreas*) and ſometimes on the Left-ſide, where the *Spleen* reſides; ſo that here was a *Lixivial* Scorbutic Humour, that from the *Spleen* was toſſed to and fro to the Stomach, or ſometimes to the *Pancreas* through the *Splenic* branch and *Vas*

Breve; the other Symptoms were a nidorulent crudity of the Stomach, a dejected Appetite, thick reddy ſpumous Urin, low inæqual Pulſe, difficulty of Breathing, and purpre Puſtles erupting and retroceding in the Face. Thoſe ſeveral eminent Phyſicians (that is eminent for a numerous Practice) ſubſequent to their Opinion, that it was the *Scorvey*, had for ſeveral Years treated him, with thoſe common igneous Antiſcorbutics, until his daily Experience of the præſcribed Medicines diſcovered to him, it was to thoſe unskilful Courſes of Phyſick he muſt impute a great part of the growth of this Diſeaſe. His Body being very thin and exanguious counter-indicated Bleeding. The Crudities of his Stomach and Infarctions of the *Meſaraiac* Veſſels by *Lixivial* pendulous Blood required Lenitives, mixt with ſome gentle Cathartics.

℞. *Elect. Linitiv. Man. Calab. Pulp. Tamarind.* an. ʒ ii ſs. *Nitr. Tartar. noſtr.* gr. xxv. *Diſſ. in decoct. Prunor. dam. & ſem. fœn.* ʒ iii. M. f. Pot.

This

This he uſed twice a Week; in his interval days took this following Drink for five Weeks, and was perfectly reſtored to his former Health; but for confirmation of his Cure, I ordered him to drink the Waters at *Tunbridge* for one and twenty days.

℞. *Rad. Tarax.* ℥ i.
Fol. Chelidon. min. M iii.
semperviv. maj. M i.
Glycyr. raſ. ℥ ſs.
Coq. in ſer. lact. q. s. ad ℔ i.
Coletur. & inſtil. Elix. Antiſcorb. noſtr. ℈ ii.
M. f. Apoz.
Sine ſacchar. vel Syr.

§. 7. To another Scorbutique, whoſe Palpitations and Lypothymies had rendred him very languid and weak, beſides Purgatives and Bleeding at the Hæmorrhoides, præſcribed this.

℞. *Rad. Scorzon.*
Vincetox. an. ℥ i.
Fol Chelidon. min.
Aparin. an. M ii.
Virg. Aur. M i.

Hord.

Hord. Mund. P i.
Glycyr. raſ. ʒ i ſs.
Coq. in Aq. font. q. ſ. ad ℔ i ſs.
In Colat. diſſolv. nitr. Tartar. ʒ i.
& inſtil. tinct. mart. gut. xv.
M. f. Apoz.
Capiat ʒ iiii. *ter per diem horis Medicis.*

In caſe a Scorbutique of this kind is afflicted with a *Diarrhœa*, or *Dyſentery*, you muſt make choice of *Liguſtrum*, *Auricul. Muris*, or *Hiſpidula*; if *Dyſepulotic* Ulcers of the Legs be the prævailing Symptoms, præfer *Virg. Aur. Pyrola*, *Symphyt. Petr.* or *Bellis.*

It is this ſort of *Scorvey* and its ſubdiviſions (which hitherto hath not been obſerved by any) that occaſions ſo many ambulative Patients, wandring from one Phyſician to another, among whom ſome are ſo ingenious to confeſs, they do not know what name to give the Diſtemper, or what to make of it.

§. 8. Beſides theſe forementioned I have found a ſingular Virtue in *Steel* drops, præpared after my Mode; likewiſe

wiſe in an *Elixir Antiſcorbuticum*, the Baſis whereof is *Antimony* ſtripped of its venenous *Sulphur*, and rendred cooling, Diuretic, and a very high Mundifier of the Blood. Neither have I ever obſerved a Medicine in moſt Scorbutic Caſes, to exceed the powerful faculties of my *Nitrum Tartariſatum*, the præparation whereof is, as followeth; but for your prævious information, you are to take notice, that in præparing *Antimonium Diaphoreticum*, I am uſed to add a triple proportion of *Salt Peter*, pulveriſed and ſifted, to crude *Antimony*, likewiſe poudered and ſifted; this being mixt together, I put by little Ladlefuls into a Pipkin made Red hot in a Reverberating Fornace, covering the Pipkin upon every Injection of the ſaid mixture; and having Injected all, I cover the Fornace with a great Tile, and let it Calcine, until the Coals be burned out. The Maſs being yet warm I pouder, and put it into a large Baſon, on which ſuppoſing the Maſs to be a Pound in weight, I pour about a quart of warm Water, and ſtir it very well about, afterwards let

let it ſtand four or five hours, that the Powder may ſettle on the bottom, decant the Water into an Evaporating body, affuſing to it half a pint of diſtill'd Vinegar, evaporate it to a Pellicle, and ſet it in a Cellar or other cool place, and there let it continue three or four days to Cryſtalize; collect the Cryſtals, and evaporate the remaining Liquor again to a Pellicle, afterwards ſet it on Cryſtalizing, and ſo proceed, until all is paſſed into Cryſtals. Diſſolve the Cryſtals into diſtilled Spring-water, ſtrain it, Evaporate, and Cryſtalize it over again, until it prove very pure and tranſparent. What relates to the remaining *Calx* of *Antimony*, proceed to your ablutions, until the Powder be perfectly Edulcorated; it is not here I deſiſt, but make a farther progreſs to a maturation, and protruſion of the eſſential or centrical *Sulphur*, and then I find it to be a Medicine, that deſerves a ſingular Character in many Diſtempers.

§. 9. I ought not to recede from the præparation of *Nitrum Tartariſatum*, without giving a deſcription of its

its Doſe and Virtues; from half a Scruple to two Scruples, it hath performed effects in the *Scorvey* and ſome other Chronical Diſtempers, which could never be expected from the *Arcanum Duplicatum*, *Tartarum Vitriolatum*, or ſuch Hermaphroditic præparations, and Neutral Medicines; for beſides its penetrative, inciſive, detergent, and deoppilative Qualities, it doth retain a proportion of Antimonial Salt, Centrical Sulphur, and a true Idea of what ever excellent Faculties *Antimony* in its beſt præparation is enricht with, ſo that there is ſcarce any Impurity (whether Manifeſt or Latent) in the Blood or Bowels, that can eſcape its energy; But when you have made uſe of as many Ounces of this *Nitrum Tartariſatum* as I have, I doubt not but you will have cauſe to give the ſame Character of it I have here Expreſſed.

CHAP.

CHAP. XXV.

Of the Cure of a *Stomachic Acid Scorvey.*

1. *An Obſervation on the ſtructure of the Stomach. That it is the* Tunica Fungoſa *is the Seat and Matrix of many Chronical Diſeaſes.* 2. *The Method of Curing a commencing* Stomachic Scorvey. *Antiſcorbutic Pills. An Antiſcorbutic Decoction.* 3. *Emetics and Gum Cathartics are moſt effectual Remedies in an inveterate* Stomachic Scorvey. *Gum-Pills.* 4. *Corroboratives proper after a Courſe of Purgatives.* 5. *Specifics againſt an* Hepatic Scorvey.

§. 1. I Muſt neceſſarily præmiſe one Obſervation touching the ſtructure of the Stomach, before I can render the Indications plain and obvious. Its contexture doth conſiſt in four Membranes. The firſt I call the *Tunica Mucoſa*, or the ſlimy Coat, being deſtined by Nature for a defence of the nervous Tunic from thoſe Acrimonious moiſtures,

moiſtures, the Stomach upon every digeſtion doth abound with. This Tunic if at any time it be abraded, occaſions great Pains, Vellications, continual Singultitions, and enormous Vomitings. The ſecond from thoſe various Sulcations and Wrincklings may aptly be termed the *Tunica Rugoſa*. This Tunic is very Nervous, and conſequently indued with a moſt exquiſite ſenſibility, derived from the Ramifications of the External branch of the ſixth pair, and from the *Plexus ſexti paris meſentericus*; the uſe of it is, to corrugate the Stomach, and to amplex the ingeſted Victuals firmly and ſtrictly. Both the forementioned Tunics late Authors have improperly named the *Cruſta Carnoſa*. The third I call the *Tunica Fungoſa*, conſiſting of a laxe ſpongy fleſh, ſerving to give an ample ſpace and paſſage for a large proportion of Arterial Blood, from whoſe præſence and præterflux in its Circulation, the Stomach doth receive a ſufficient heat to diſſolve, concoct, and elaborate its contents into a Chyle. Another great uſe is, that it is ſubſervient in the nature of a *Concoctory*, where

where the crude Blood circulating is to be Digeſted or Concocted into a ſweeter and æqual Maſs; ſo that you muſt make this Annotation, that it is here the groſs, and phlegmatic crude Blood doth ſo frequently ſtagnate; whence that peſanture and load at the Stomach, which the Sick do ſo commonly make complaint of in moſt Diſtempers, is occaſioned, and not from crude viſcous Humours in the capacity of the Stomach, which Phyſicians, with the Ignorant vulgar, term a Cake of fleam; for were this a truth, a detergent *Aloetic Laxative* would at once ſcour the Stomach, and diſburden it of thoſe weighty Humours, or at leaſt a Galiard Vomit cannot be ſuppoſed to fail in that Indication; but on the contrary we find, that in many Caſes ſcarce a ſcore of proper Purgers, or half that number of Emetics will accompliſh the deſign; however this is not to be apprehended ſo ſtrictly, but that ſome crude Humours may float, or through their tenacity adhære to the ſides of the Stomach, and may be as conveniently removed thence by a detergent Laxative.

tive. It is in this Tunic, where many Distempers take their root, which generally proves of so difficult an eradication; but be not so facil, as to erre with the gross of Physicians, in imagining, that it is those thick mucilaginous humours, penetrating through the *Tunica Mucosa* and *Nervosa*, do lodge in the *Tunica fungosa*, and constitute the Cause of those durable pesantures of the Stomach; for the said Humours are nothing near proportioned in subtility to pass through the thick and compact bodies of the forementioned Membranes. The fourth Tunic is the common Tunic, derived from the *Peritonæum*.

§. 2. This sufficeth to inform you, that in a commencing *Stomachic Scorvey* nothing is more properly Indicated, that an *Aloetic Eccoprotic* præpapared, as hath been proposed before, and repeated once, or twice, and sometimes thrice a Week, and in the Interval dayes a Detergent and Antiscorbutic decoction. Thus I have Cured several with these following præscriptions, being sometimes a little varied

to anſwer their ſeveral Temperaments, Ages, and other Circumſtances.

℞. *Aloes noſt. præp.* ʒ ii.
Cort. Winteran.
Nitr. Tartariſat. an. ʒ ſs.
Syr. Roſ. ſol. q. s.
N. f. Maſs. Pil.

Equavis ʒ *a. formentur Pil.* N°. ix. *& deaurentur. capiat Pil.* iiii. *veſp. ſub ingreſſ. in lect. & Pil.* v. *ſequent. aurora, ſuperbibendo hauſt. liquor. ſequent.*

℞. *Fol. Cochlear. hort.* M iiii.
Fol. Becabung. M ii.
Sum. Abſynth. vulg. P i.
Flor. Centaur. ʒ i ſs.
Cort. Aurant. ℈ ii.
Infund. in Aq. Cochl.
Vin. alb. an. ℔ i.

Expreſſio reponatur in ampul. vitr. ſumat ʒ iiii. *ter per diem horis Medicis.*

§. 3. From the clogging and burden of the *Tunica Fungoſa* we are to deſume this Indication, that a ſafe and well præpared Antimonial Vomit is par-

particularly pointed at, which through its moſt ſubtil *Sulphur* doth penetrate in a very ſhort ſpace through the whole Body and every part of it, diſſolve the moſt tenacious Humours, and by ſtimulating the Nervous Tunic of the Stomach doth diſlodge, and throw off thoſe obſtinate adhærents; and among thoſe numerous præparations, I could never yet find auy more ſafe and effectual, than my *Antimon. Reſuſcitat.* the proceſs whereof is deſcribed in my *Great Venus.* But where a Vomit is counter indicated by the unaptneſs and difficulty of evacuating that way, take your refuge to *Gum Cathartics*, which uſed for Eight, Ten, or Fourteen days, oft do wonders. The following Maſs of Pills in caſes of this nature I have ſeveral times præſcribed, with a ſucceſs ſuitable to the Excellency of its Ingredients.

℞. *Aloes ſuccotr.*
Gum. Ammon. an. ʒ ii.
Solvantur in tinctur. gentian. q. s. inſtillat. Spir. Vitriol. philos. gut. xx. *ſolutio coletur & evapor. ad mellagin. addendo deinceps.*

Spec. Diaſen. ʒ iii.
Sal. Chalyb. noſtr. ʒ ii.
Nitri. Tartar. ʒ i ſs.
Bezoard. Jovial. ℈ ii ſs.
Ol. Succin. gut. xv.
Elix. Proprietat. q. s.
M. f. Maſs. Pilul.
Doſ. a ℈ i. *ad* ʒ i.

§. 4. Since in Scorbutic Diſtempers, longer Courſes than of a Fortnight or three Weeks, do not only occaſion a *Fatigue*, but a weakneſs alſo to the Stomach, a confortative Electuary ought to be made uſe of for ſix or ſeven days, and then return to a repetition of the foregoing Courſe; for Chronical Diſeaſes, eſpecially Scorbutics, proving very obſtinate, require fræquent reiterations of Medicines.

A Confortative Stomachic Electuary.

℞. *Conſerv. Anth. Salv.*
Abſynth. pont. an. ʒ i.
Pulv. Stom. ex aron. Quercet. ʒ i.
Zedoar. Cort. Winter. an. ʒ ſs.
Elix. Proprietat. gut. xxxx.
Syr. cort. citr. q. s.
M. f. Elect.

Capiat

Capiat quotidie ad magnitud. caſtan. duabus horis ante paſtum.

§. 3. An *Hepatic Scorvey* is vigorouſly oppugned by theſe two ſpecificks; *Aparine*, and *Chelidonium minus*. Moſt cooling vulnerary Vegetables do alſo very much conduce to the Cure of this Diſtemper; hereunto add *Agrimony* and *Lapathum acutum*.

CHAP. XXVI.

Of the External Cure of the *Mouth-Scorvey*.

1. *The Deſcription of a* Mouth-Liquor.
2. *A* Liniment *for the ſame uſe.*
3. *A* Collution *for the Mouth againſt Ulcers of the* Gums.

§. 1. BY what means to act againſt the Internal root of an *Acid Scorvey*, hath been formerly declared; how to reſcind this Branch, the *Mouth-Scorvey*, by extrinſic Remedies, is the purport of this Paragraph. The correcting and ſubduing

the putrid acour of the Blood, appelling to the inward parts of the Mouth, and there occaſioning a Vacillation of the Teeth, painful, ſpongy, tumefied and diſcoloured Gums, I have more than once proved ſucceſsful in, by this following Liquor.

℞. *Fol. Cochlear.* M viii.
Fol. Salv. P iii.
Poſt contuſ. in mort. marm. exprimatur ſuccus, in q. diſſolv. Alum. rup. ℥ i. *Colcoth. Vitriol.* ʒ ii. *reponatur in veſic. Suil. quæ ſtrict. clauſa ſuſpendatur in aq. tepid. donec Alum. & Vitr. fuerint penitus ſolut. dein deſtil. e cucurb. humil in aren. reſidentia denuo ſuſpend. in veſic. & repetatur deſtil.*
Linteo præſcripto Liquore imbuto confricentur gingivæ bis vel ter per diem.

This Liniment in ſome manner doth imitate the Virtues of the former.

℞. *Fol. Salv. ſic. pulv.* ʒ i.
Rad. Tormentil. pulv. ℈ ii.
Flor. ſal. armon. chalyb. ʒ ſs.

Balauſt.

Balaust. pulv. ℈ i.
Mel. Crud. q. s.
M. f. Liniment.
Quo sæpius inung. gingivæ.

§. 3. If by reason of a greater Acrimony and Putrefaction of Humours the Gums grow Ulcerous, nothing seems parallel to this Collution.

℞. *Lixiv. calc. viv.* ℥ iiii.
Tinct. gum. Lac. ℥ i. ſs.
Elix. Proprietat. ʒ ſs.
Alum. Ust. ℈ ii.
Colcoth. vitriol. ℈ i.
Mel. ros. ℥ i.
M. f. Collut. oris.
Qua sæpius gingivæ madefiant.

CHAP. XXVII.

Of the External Cure of the *Leg-Scorvey.*

1. *Description of the Authors* Lapis Salutis. 2. *A* Liniment *against Ulcers of the Legs.* 3. *A Cicatrizing Powder.*

§. 1. DEpaſcent and Dyſepulotic Ulcers are thoſe obſtinate Symptoms, that require a particular regard, againſt which my *Lapis Salutis* hath been Experienced to be very prævalent.

℞. *Vitriol. Rom.* ℥ iiii.
Cerus.
Litharg. Arg.
Vitriol. Mart. an. ℥ ii.
Virid. æris. ℥ i.
Coq. in Acet. acr. ad ſupereminentiam duorum digit. ſemper agitando, donec acquirant conſiſtent. luti, addita Bol. Armen. ℥ i. *coq. ad duritiem lapidis. Hujus particula ſolvatur in Vin. rub. adſtring. q. s. quo lotis ulceribus applicentur iiſdem plumaceoli eo madefacti.*

§. 2. In caſe the Ulcers be very foul, the following Liniment may ſerve for an excellent Deterger.

℞. *Ol. Jovis Mercur.* ℥ i.
Mel. Roſat. ℥ vi.
M. f. Liniment.

3. *Scor-*

3. *Scorbutic Ulcers* of the Legs, though exquiſitely deterged and incarned to the Surface, nevertheleſs prove *Dyſepulotic*, or difficult to be acatrized by common *Epulotics*, whoſe defect is oft wonderfully ſupplied by the amalgamation of Lead, being ſubtilly pulverized, lævigated, and inſperſed pretty thick on the ſaid Ulcers, and covered with unarm'd plegets, or dry Lint.

In concluſion of this Chapter, I ſhall onely inſert this *Caveat*, to forbear uſing any kind of Unctuous greaſie Medicines, be they Emplaſters, Unguents, Liniments, or Oyls, they being all of a putrefactive nature, eſpecially in this ſort of Ulcers.

What concerns Spots, Blotches, or Puſtles, they do not require any particular applications, ſince they uſually vaniſh with the reſt of the internal ſymptoms, upon a due courſe of Medicines.

CHAP.

CHAP. XXVIII.

Of Cordials.

1. *Cordial Simples.* 2. *The form of a Cordial Julep.* 3. *Analeptics.*

§ 1. THe Vital Faculty being commonly very languid in Scorbutic Diſtempers, indicates *Cordial Refectives*, and *Analeptic Corroboratives.* The former are choſen out of fragrant and ſpirituous Vegetables, *viz. Flor. Borrag. Buglos, Roſ. Viol. Calendul. Summit. Meliſ. Ceras. Nigr. Mala Citrea, Serpil. Citrat. Menth.* and *Flor. Aurant.* which latter in Vertue, Efficacy and Propriety, is a Specifie Cordial in moſt Hypochondriac Maladies, by far exceeding all the fore-mentioned; and therefore cannot but wonder, that Phyſicians have of late years eſtranged themſelves from the uſe of it: But in this as in many others I find ſome to be very mutable; ſometimes Acids, and Coolers are to be præſcribed in Fevors, otherwhiles they æſteem them per-

pernicious, and hot Volatils are only to be recommended; and ſo the like inſtability of Practice may be obſerved in ſeveral other Diſtempers; what principle this flows from, you may eaſily conjecture. To theſe may be added the leſs heating Aromatics, as *Mace*, *Nutmegs*, *Cinamon*, &c. likewiſe Wine, ſome vinous Compoſites, and ſome Alexipharmacs.

§. 2. Out of theſe ſeveral Compoſitions, may be præſcribed this following, which hath been experienced not to be unpleaſant, nor ineffectual.

℞. *Aq. ſtillat. ceraſ. nigr. tot. citr. Serpil. citr. aurant.* an. ℥ i ſs.
Aq. Cinam. tenuior.
Vitæ Matth. an. ℥ i.
Suc. Kerm. ℥ i.
vel Confect. Alkerm. ℈ iiii.
Syr. Meliſ. ℥ i ſs.
Spir. Menth. ℥ i.
M. f. Jul.
Capiat. cochl. ii. *vel* iii.
urgente languore.

The *Citron* and *Limon Thyme* water

ter I ſuppoſe to be Diſtilled upon a prævious digeſtion with half water and half ſmall *French* Wine. *Aq. Mirabil.* I ſeldom make uſe of, becauſe it's a Water very unpleaſant, and conſiſting of diſproportioned Ingredients. You muſt manage your Election of the foreſaid Cordials according to their proprieties againſt an *Acid*, or *Lixivial Scorvey.*

§. 3. The *Analeptic* Corroboratives are chiefly Broaths made of a Cock, Chicken, or Veal, with the addition of Barley, or a Cruſt of Bread, Cordial Flowers, and a ſmall proportion of Mace.

CHAP. XXIX.

The Cures of a Scorbutic Atrophy, *of the* Gout, *and of* Convulſions.

A Scorbutic *Atrophy* is remedied by reducing the Blood to its natural temperament, whereby its rendred Nutrititious, and apt to repair the diſſipated parts.

Goats

Goats Milk, wherein Antiſcorbutics have been boil'd, is univerſally received for a great Remedy in this Caſe.

Likewiſe this following in a *Lixivial Atrophy.*

℞. *Rad. Conſolid.* ℥ i.
Fol. hepat. ſtellat. M iiii.
Fol. Chelidon. min. M ii.
Liguſt. M i.
Flor. Borrag. P ii.
Decoct. limac. vit. & ped. vervec. ℔ iii. *poſt digeſt. quatuor horar. deſtill. è cucurb. vitr. humil. in cinerib. de quo capiat* ℥ iiii. *ter per diem ſcilicet hora* 8. 11. & 4. *pomeridiana.*

§. 2. Againſt Scorbutic arthritic vagous pains, I find nothing æqual to my *Tinctura Chalybis*, and *Tinctur. Antimonii Fulva*, either or both being in proper Vehicles exhibited for 14, or 21. dayes.

This Obſervation I affirm is univerſal in this Climat, that all or moſt Arthritic pains both Vagous and Fixt are either Scorbutic or Venereal, that is depending on a Venereal impreſſion or Tin-

Tincture, which ſome former Malignant infection (though cured 10 or 20 years paſt) hath left; for all Varolous diſeaſes leave a ſtain or impreſſion on the parts, which is as little deleble as the mark of a Blaſt, or a *Cicatrix* of a Malignant Ulcer; for this reaſon theſe ſorts of Gouts ſhall never be Curable, or indeed ſcarce palliable without Antiſcorbutic or Antivenereal Specifics, or both mixt with Arthritic Medicines. Scorbutic Arthritic fixt pains I have oft removed by my *Spir. Arthritic.* extracted from the *Sulphur* of ſeveral Minerals. For an Anodine and Palliative Topic, againſt the ſaid Joynt torments, I only apply a *Cinnaber Emplaſter*, but not that recommended in my *Great Venus*.

§. 3. Some Scorbutic Convulſions this following *Elixir* doth vigorouſly oppugnate.

℞. *Elix. præon. præp. cum Spir. acid. Succin.* ℥ ſs.
Sal. Antimon. noſtr. ℈ ii.
M.

Capiat. gut. xx. *vel* xxx. *ter vel quater per diem in Decoct. antiſcorb.*

The

The Antiſpaſmodics contained in the *London Diſpenſatory*, are chiefly theſe; *Ungula alcis, cranium humanum, viſcum querc. Aq. Ceraſ. nigr. Lilior. convall. Flor. tiliæ, paralyſ. rutæ, Aq. Pœoniæ compoſ. Spir. lavendulæ compoſ. Spir. & tinct. caſtorei. Spir. Lumbricor. Spir. Angelic. Aq. Petaſit. compoſ. Syr. infuſ. Flor. pœon.* item *Syr. Pœon. compoſ. Syr. de beton. compoſ.* likewiſe *Ol. Succin. Spir. C. c. & Ol. Guaiac.*

I have known two ounces of *Aq. Gentian. compoſ.* to do wonders, in ſuddenly removing Convulſion fits in Men and Women.

The moſt proper form for Exhibition of the fore-mentioned Specifics againſt Convulſions is a Julep præſcribed in this or the like manner.

℞. *Aq. flor. til. rut. ceraſ. nigr.* an. ℥ i.
Aq. Pœon. comp. ℥ i ſs.
Tinct. Caſtor. ℥ i.
Rad. Pœon. p.
Caſtor. p.
Ungul. alc. raſ. an ℈ ſs.
Syr. Pœon. comp. ℥ i.
Ol. Succin. rect. gut. x.
M. f. Jul. *Capiat*

Capiat part. med. ante paroxyſm. Convulſiv. & alteram poſt parox.

For a Topic nothing is comparable to *Balſamum Succini.*

In ſome Scorbutic Convulſions an Electuary may be proper to prævent the Paroxyſms, becauſe it's not ſo ſoon digeſted, but remains a good while in the Stomach to diſperſe its Virtues to the parts affected.

℞. *Conſerv. Flor. Pæon. m. herb. paralyſ. anth.* an. ℥ i.
Rad. acor. condit.
Nuc. Moſcat. cond. an. ℥ ſs.
Confect. Mithridat. ℥ i ſs.
Rad. Pæon. pulv.
Caſtor. pulv.
Ungul. alc. raſ. an. ℥ ſs.
Syr. de Pæon. comp. q. s.
Ol. Succin. rectif gut. xv.
M. f. Elect.
Capiat ad magnit. caſtan. duabus horis ante cibum.

CHAP.

CHAP. XXX.

Of *Malignant Fevors*, and *Small Pox*.

1. *The Cause of* Malignant Fevors. 2. *The Cause of the* Small Pox. 3. *The Cure of the* Small Pox.

§. 1. THe Malignity that so oft is Concomitant and Supervenient to continual Fevors, constantly almost Reigning in and about *London*, seems chiefly to derive its Original from the ill temperature of the Air, which as hath been declared, is Salin and Scorbutic. That this is the principal Procatarctic, is evident from these two Reasons: 1. Because Persons differing from one another in the use of all the other *Non-naturals*, are subject to be surprised by the same Malignant Fevor, which consequently must then solely be derived from the Air, that only of all the *Non-naturals* being the same, and common to all. 2. Because many of those, that have the misfortune to fall Sick of a *Malig-*

nant Fevor, have been moſt temperate and regular in their Diæt, Motion, and Reſting, Sleeping and Waking, Excretions and Retentions, and Paſſions of the Mind; ſo that it muſt be the Air only, that lies imputable of this Malignant Effect; add hereto, that *Engliſh* Bodies when incident into Fevors in ſome other Climates, are not afflicted with thoſe Malignant Symptoms. The cauſality through which a Salin Air produceth ſuch Malignant febril Effects, is by diſpoſing the Body to engender great meaſures of groſs Fuliginous and very Acrimonious ſteems, which by reaſon of the conſtipation of the External pores, and of other Internal obſtructions are repelled, and incorporated into the whole current of the Blood, kindle and inflame its Bituminous parts, whoſe flames are thereby rendred Malignant and venomous to the Spirits, which then prove the immediate Cauſe of thoſe Malignant Symptoms. 3. By this means the Blood ſoon becomes Lixivially Salin, Saponary, and runs into a groſs deliquious Oyl, as plainly appears, when occaſionally tapt out by Phlebotomy.

Now

Now the great difficulty of reducing this unctuous ſaponary Blood to its former qualification, and freeing it from that groſs Salin and Acrimonious *Fuligo*, is the Cauſe, that renders *Malignant Fevors* ſo indomitable, and extremely pernicious. Upon this *Hypotheſis*, which your ſtrict Scrutiny and Obſervation in Practice will abundantly confirm, how Deleterious the ordinary Method of Curing the ſaid Fevors, and how contrary thoſe hot Cordials exhibited by ſpoonfuls prove, is eaſily diſcovered; for inſtead of moving Nature to ſweat by an Inciſive, Attenuating, and Volatilizing quality, and by Amortizing the Lixivial Salts, they render the ſaid Salts more Lixivial and abſorbing, and conſequently diſpoſe the Body not towards, but againſt Sweating. Neither are the Times or Seaſons obſerved for exhibiting of Medicines, that are accordingly to be varied in quantity quality and other circumſtances; a certain directory of all which can never be attain'd by Indications, deſumed from that impertinently improved Notion of *Fermentation*, which

hath been the occaſion of poſting hundreds to the jaws of *Orcus*. What meaſures ought to be taken in point of Management and Cure of this Diſtemper, I have already propoſed in my *Tractatus Theoret. & Pract. de Febribus*; But in ſhort, the neceſſary præmiſſes not being omitted, I do repoſe a great confidence in an *Antifebril Elixir*, conſiſting of Ingredients of a mixt nature; and in *Spir. cornu cervi* præpared in a peculiar manner.

§. 2. The *Small Pox* being in ſome kind not unlike the foregoing Diſtemper, I will only give my Sentiment, with Directions relating to the Cure, and then take leave. I cannot give Credit to the received Opinion, importing, that the Small is cauſed by ſome impurities, the *Fœtus* contracted in the Womb, which afterwards Nature doth caſt forth into thoſe virulent Puſtles: this among the reſt is certainly a *Deliramentum Antiquitatis*; for conſidering that in *Guinee*, moſt parts of *Africa*, and almoſt throughout whole *Aſia*, the Natives, or indeed the Strangers are never ſurprized with

with the *Small Pox*, though their Impurities contracted in the Womb (if any after many years interval) cannot be supposed less than ours, we must conclude, that it is rather an *Endemic Disease*, peculiar to the *Northen* Climes, or rather a seasoning or alteration of the Nature of Man, arriving out of the *Microcosm* of his Mother into the *Macrocosm*, impressed by the rudeness and difference of temperature of the Air of *Northern* Climes from his primogenial Temperament, which needs no other Confirmation, than the Instance of those *Guineans*, *Indians*, and others, who soon upon their arrival into those Climes are attaqued by the *Small Pox*, which I can term nothing but a Seasoning, in like manner, as *Northern* Bodies are seasoned with other Diseases of the Climate that transport themselves to *Virginia*, *Barbados*, or other parts of the *West*, or *East-Indies*. That some undergo this seasoning of the *Small Pox*, soon after they are crept out of the shell, others when they are grown up to riper years; and some not at all, being prævented by some Mortal Distemper,

per, is occaſioned, through the ſtrength of Nature, ſome Bodies are indued with above others (that undergo the fore-mentioned ſeaſoning ſoon after their Birth) whereby they are rendred capable to reſiſt the alterative impreſſions of the Air.

Since then it is ſo obvious, that the Air is the principal External efficient, you muſt neceſſarily apprehend, that where the Air is Salin and Scorbutic, the *Small Pox* proves much more Malignant, and frequently mortal, and that, by reaſon the Blood becomes Lixivial, Saponary, and Abſorbing, which to diſpoſe to a *Diaphoreſis*, or Breathing, by thoſe hot inflaming Cordials is in ſome as impoſſible, as to force Water out of a Flint; but on the contrary, the Salts of the Humors being rendred more Lixivial and Abſorbing by them, they do not only through that abſorbitive and droughty Faculty exhauſt and dry up the *Serum* of the Blood, but concentrate and retract, or draw in from the circumference thoſe volatil fuliginous Salts, together with the External Salts engendred in the Air, which otherwiſe Nature is ſtriving

ſtriving to caſt forth; and hence it is, that Old Women and Nurſes by giving only large meaſures of plain moiſtening poſſet Ale, very ſmall Ale boyld, or thin Fig-drink, prove infinitely more ſucceſsful, than many if not moſt of Phyſicians: But now I muſt tell you alſo, that ſome of the ingenious Practicers of the College of *London*, taking their meaſures from the event the management of Old Women doth procure, and the ill Exit that attends the advice of other Phyſicians, do abandon all thoſe hot aduring *Species*, and diſtill'd Waters, and præſcribe temperate Moiſtening Diaphoretic Decoctions, and diſtilled Waters, whereby they juſtly deſerve the Character of moſt Experienced and Learned Phyſicians, ſcarce one in a very great Number ſtooping to the Conqueſt of his Diſtemper, and that by reaſon of their apt and exquiſite præſcriptions. In fine, there are no principles, either thoſe of Dogmatic putrefaction, or that of Fermentation, which to me do ſo evidently expound the cauſality and reaſon of all thoſe Symptoms and Changes, that ſo ordinarily

narily happen in the *Small Pox*, and *Meaſels*, than the *Hypotheſis* I have propoſed; and what coneerns the Practical Indications they are ſuch, that in Succeſs and happy Event, I am confident exceed all others.

§. 3. The *Alexiterial* ſimples are *Rad. ſcorzoner. hiſp. Vincetox. fol. Galeg. Scabios. flor. Calend. ſem. Aquileg. fruct. caric.* (in caſe of a Looſneſs or Vomiting *Rad. Biſtort.* and *Tormentil.*) *aq. Card. Ben. Scabios. Malv.* the Compoſites are *Aq. Scord. compoſ. Diaſcord.* not that of *Fracaſt.* as it is ſet down in the *London Pharmacopœa* with the addition of Pepper, Ginger, Cinamon, *&c.* which muſt neceſſarily be very pernicious in this Diſtemper, *Spec. e chel. cancr. Diamarg. frig. Cardiac. Magiſtral.* and ſuch like.

The *Decoct. Lent.* though commended almoſt in every Author, I am certain is not agreeable to this Diſtemper in our Climat. *Spir. Corn. Cerv.* particularly præpared, and *Elix. Antifebril.* are æqual to any of the forementioned.

This Treatiſe being ſwelled beyond my Intention, am Obliged to omit particular Obſervations, and Conclude.

FINIS.

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